

Apéndice-4 Minutas de Discusión

Minutes of Discussions
on
The Project for Replacement of Equipment
for the Radiotelevision Dominicana
in
The Dominican Republic

In response to the request by the Government of the Dominican Republic, the Government of Japan decided to conduct a basic design study on the Project for Replacement of Equipment for the Radiotelevision Dominicana (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (JICA). JICA sent to the Dominican Republic the study team (hereinafter referred to as "the Team") headed by Mr. Takayoshi Kawai, Assistant Director of Broadcasting Bureau, Ministry of Posts and Telecommunications, from 31st March to 23rd April, 1991.

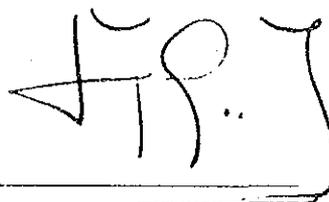
The Team had a series of discussions on the Project with the officials concerned of the Government of the Dominican Republic.

As a result of the study and discussions, both parties agreed to recommend to their respective Governments to examine the result of the study attached herewith towards the realization of the Project.

Santo Domingo, 9th April, 1991

河合隆芳

Takayoshi Kawai
Team Leader
Japanese Study Team



George Rodriguez Dabas
Director General
Radiotelevision Dominicana

Annex I

1. The objective of the Project is to improve the present conditions of RTVD stations and to consequently ensure the proper and effective function in the supply of educational and cultural programs to the general public by replacing modern and equipped facilities.
2. The Radiotelevision Dominicana is responsible for the implementation of the Project on the Dominican Republic side.
3. The Team will convey to the Government of Japan the intention of the Government of the Dominican Republic that the former takes necessary measures to cooperate in implementing the Project and providing the facilities and equipment listed in Annex II within the scope of the Japanese economic cooperation program in Grant form.
4. The Dominican Republic side has understood the Japan's Grant Aid System explained by the Team which includes a principle of use of a Japanese Consultant Firm and Japanese Contractors for the implementation.
5. The Government of the Dominican Republic will take necessary measures listed in Annex III on condition that the Grant Aid by the Government of Japan would be extended to the Project.

J.K. H.P.

Annex II

1. Renewal of the TV transmitting facilities:
 - Santo Domingo station
TV transmitter and antenna (urgently needed)
 - Alto de la Bandera station
TV transmitter, antenna and tower
 - La Romana station
TV transmitter and antenna (low priority)

2. Renewal of micro-wave link:
 - between Santo Domingo and Alto de la Bandera (urgently needed)
 - between Alto de la Bandera and La Romana (low priority)

3. Rehabilitation of the Santo Domingo TV production equipment with reinforcement of production capacity.
 - program production equipment
 - master control equipment
 - lighting equipment

4. Other necessary equipment, spare parts, measuring equipment.

5. Technical assistance
 - short term experts, both program producer and broadcasting engineer
 - staff training in Japan

T.K. H.P.

Annex III

1. To carry out such preparations before commencement of construction work at Santo Domingo station.
 - air conditioning system for studio B and sub-control room
 - installation of supporter for the lighting equipment
 - modification of studio B, sub-control room and master control room.
2. To secure the land necessary for the antenna tower at Alto de la Bandera.
3. To carry out such preparations before commencement of construction work of antenna tower at Alto de la Bandera.
 - clearance
 - leveling
 - foundation work
 - access road
 - modification of transmitter house
4. To remove non-operated equipment before commencement of construction work at the Project site.
5. To provide facilities for distribution of electricity, water supply, telephone and other incidental facilities to the Project site before the start of the construction.
6. To bear commissions to the Japanese foreign exchange bank for the banking services based upon the Banking Arrangement.
7. To ensure prompt unloading, tax exemption, customs clearance at the ports of disembarkation in the Dominican Republic and prompt internal transportation of the equipment purchased under the Grant Aid.
8. To accord Japanese nationals whose services may be required under the verified contract such facilities as may be necessary for their entry into the Dominican Republic and stay therein for the performance of their work.

T.K. H.F.

9. To exempt the Japanese nationals concerned from customs duties, internal taxes and other fiscal levies imposed in the Dominican Republic with respect to the supply of the equipment and the services for the Project.
10. To maintain and use properly and effectively the facilities constructed and equipment purchased under the Grant.
11. To bear all the expenses other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and the installation of the equipment.

J. K. J. F.

Minutes of Discussions
on
The Project for Rehabilitation of Equipment for Amplification
of
Educational Broadcasting for the Radiotelevision Dominicana
in
The Dominican Republic

(CONSULTATION ON DRAFT REPORT)

In April 1991, the Japan International Cooperation Agency (JICA) dispatched a Basic Design Study team on the Project for Rehabilitation of Equipment for Amplification of Educational Broadcasting for the Radiotelevision Dominicana (hereinafter referred to as "the Project") to the Dominican Republic. and through discussions, field survey, and technical examination of the results in Japan, has prepared the draft report of the study.

In order to explain and to consult the Dominican Republic on the components of the draft report, JICA sent to the Dominican Republic a study team, headed by Mr. Takayoshi Kawai, Assistant Director of Broadcasting Bureau, Ministry of Posts and Telecommunications, from 9th July to 17th July, 1991.

As a result of discussions, both parties confirmed the main items described on the attached sheets.

Santo Domingo, July 12th, 1991

河合 隆芳

Takayoshi Kawai

Leader

Draft Report Explanation Team

JICA

George Rodriguez Dabas

George Rodriguez Dabas
Director General

Radiotelevision Dominicana

ATTACHMENT

1. Components of Draft Report

The Government of the Dominican Republic has agreed and accepted in principle the components of the Draft Report proposed by the team.

2. Japan's Grant Aid system

(1) The Government of the Dominican Republic has understood the system of Japanese Grant Aid explained by the team.

(2) The Government of the Dominican Republic will take the necessary measures, described in Annex, for smooth implementation of the Project on condition that the Grant Aid assistance by the Government of Japan is extended to the Project.

3. Futher schedule

The team will make the Final Report in accordance with the confirmed items, and send it to the Government of the Dominican Republic by the end of September 1991.

J.P.

J. K.

Annex: Necessary measures to be taken by the Government of the Dominican Republic in case Japan's Grant Aid is executed.

1. To secure the site for the Project.
2. To clear, level and reclaim the site prior to commencement of the construction.
3. To undertake incidental outdoor works such as gardening, fencing, gates and exterior lighting in and around the site.
4. To construct the access road to the site prior to commencement of the construction.
5. To provide facilities for distribution of electricity, water supply, telephone, drainage, sewage and other incidental facilities to the Project site.
 - 1) Electricity distributing line to the site.
 - 2) City water distribution main to the site.
 - 3) Drainage city main to the site.
 - 4) Telephone trunk line to the main distribution panel of building.
 - 5) General furniture such as carpets, curtains, tables, chairs and others.
6. To bear commissions to the Japanese foreign exchange bank for the banking services based upon the Banking Arrangement.
7. To exempt taxes and to take necessary measures for customs clearance of the materials and equipment brought for the project at the port of disembarkation.
8. To accord Japanese Nationals whose services may be required in connection with the supply of products and the services under the verified contract such facilities as may be necessary for their entry into the Dominican Republic and stay therein for the performance of their work.
9. To maintain and use properly and effectively the facilities constructed and equipment purchased under the Grant.
10. To bear all the expenses other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and the installation of the equipment.

JP

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Technical cooperation

The Dominican side pointed out the need for dispatch of Japanese experts as well as technical training of counterpart personnel in Japan. They also understood that technical cooperation cannot be requested in the Grant Aid system and that another official request should be submitted through diplomatic channels.

Technical cooperation in connection with the Project

The study team explained the Japanese technical cooperation system and pointed out that a new proposal of the Government of the Dominican Republic would be necessary, when such cooperation is needed in connection with the Project.

JP

J.K

Apéndice-5 Datos en cuanto a la República Dominicana

Dato 5-1 Datos Estadísticos de población y otros

SECRETARIADO TÉCNICO DE LA PRESIDENCIA
OFICINA NACIONAL DE PLANIFICACION

PRINCIPALES INDICADORES POR REGIONES, SUBREGIONES Y PROVINCIAS.

| REGIONES, SUBREGIONES Y PROVINCIAS | POBLACION ESTIMADA (AL 15-5-90) | SUPERFICIE (EN KM2) | DENSIDAD (HAB/KM2) | EMPRESAS INSCRITAS POR AGENCIA SEGUN TIPO PERSONA (AL 31-12-89) | | ASENTAMIENTOS/GERENCIAS (AL 31/12/88) | | ZONAS FRANCAS INSTALADAS Y EMPRESAS (AL 31-12-89) | | AGROINDUSTRIAS CLASIFICADAS (AL 31-12-89) | | | | PROYECTOS TURISTICOS APROBADOS POR SECTOR (DEL 7-5-74 AL 4-7-89) | | | | NUMERO DE FINANCIERAS REGISTRADAS (AL 21/9/89) | | | | |
|------------------------------------|---------------------------------|---------------------|--------------------|---|---------|---------------------------------------|-----------|---|----------|---|---------|----------|----------|--|---------|---------|-----------------------------|--|-------|---|----|-----|
| | | | | Morales | Físicas | Total | (TAREAS) | ASENTADOS | OPERANDO | CLASIF. | EMPLEOS | CANTIDAD | AGRICOLA | INDUSTRIAL | EMPLEOS | HOTELES | HOTELES Y VILLAS TURISTICOS | | OTROS | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL GENERAL | 7,158,769 | 48,250.72 | 148 | 114,028 | 32,695 | 46,723 | 6,123,812 | 68,416 | 20 | 188 | 236 | 152,971 | 128 | 8,412 | 8,481 | 16,893 | 41 | 36 | 11 | 5 | 51 | 500 |
| REGION SURESTE | 13,788,794 | 14,961.66 | 249 | 111,211 | 22,465 | 33,676 | 1,985,715 | 18,984 | 11 | 94 | 137 | 126,745 | 61 | 4,849 | 4,096 | 8,945 | 24 | 19 | 2 | 3 | 37 | 307 |
| SUBREGION VALDESIA | 13,867,835 | 6,994.87 | 445 | 118,789 | 20,270 | 31,059 | 799,741 | 8,934 | 7 | 37 | 80 | 113,793 | 49 | 3,884 | 3,289 | 7,173 | 16 | 8 | 1 | 1 | 31 | 376 |
| Distrito Nacional | 12,402,103 | 1,400.62 | 1,715 | 110,572 | 19,438 | 38,010 | | | 5 | 15 | 39 | 5,986 | 22 | 374 | 1,265 | 1,639 | 16 | 7 | 1 | 1 | 38 | 369 |
| Peravia | 182,311 | 1,638.41 | 111 | 78 | 332 | 482 | | | 1 | 10 | 11 | 1,936 | 7 | 1,376 | 1,155 | 2,541 | 0 | 1 | 0 | 0 | 1 | 1 |
| San Cristóbal | 314,248 | 1,242.98 | 253 | 147 | 500 | 647 | 799,741 | 8,934 | 1 | 12 | 30 | 5,821 | 18 | 1,642 | 466 | 2,188 | 0 | 8 | 0 | 0 | 0 | 6 |
| Monte Plata | 168,373 | 2,612.86 | 64 | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 492 | 393 | 885 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUBREGION DEL YUNA | 641,759 | 8,006.79 | 88 | 422 | 2,195 | 2,617 | 1,198,974 | 10,850 | 4 | 57 | 57 | 112,952 | 12 | 965 | 887 | 1,772 | 9 | 11 | 1 | 2 | 6 | 11 |
| El Seibo | 96,184 | 1,786.80 | 54 | 37 | 248 | 277 | | | 0 | 8 | 8 | 0 | 1 | 185 | 59 | 244 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hato Mayor | 76,827 | 1,318.68 | 58 | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 6 | 552 | 482 | 954 | 0 | 0 | 0 | 0 | 0 | 0 |
| La Altagracia | 118,537 | 2,996.53 | 37 | 45 | 458 | 513 | 1,186,974 | 10,850 | 0 | 0 | 0 | 0 | 2 | 51 | 288 | 251 | 3 | 0 | 0 | 1 | 3 | 3 |
| La Romana | 163,691 | 654.78 | 258 | 153 | 812 | 965 | | | 2 | 16 | 16 | 2,916 | 1 | 122 | 79 | 281 | 2 | 0 | 0 | 0 | 1 | 6 |
| San Pedro de Macoris | 195,320 | 1,258.08 | 155 | 137 | 675 | 862 | | | 2 | 41 | 41 | 18,036 | 2 | 55 | 67 | 122 | 3 | 11 | 1 | 1 | 2 | 2 |
| REGION SUROESTE | 818,627 | 14,372.69 | 57 | 175 | 1,017 | 1,192 | 1,882,926 | 11,215 | 1 | 5 | 6 | 1,361 | 17 | 1,423 | 1,017 | 2,448 | 1 | 1 | 0 | 0 | 3 | 11 |
| SUBREGION ENRIQUILLO | 384,186 | 6,948.81 | 44 | 87 | 318 | 485 | 497,773 | 3,631 | 1 | 5 | 6 | 1,361 | 5 | 217 | 181 | 398 | 0 | 1 | 0 | 0 | 2 | 0 |
| Bahoruco | 88,823 | 1,248.23 | 71 | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 1 | 10 | 24 | 34 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barahona | 154,143 | 1,639.43 | 94 | 87 | 318 | 485 | 497,773 | 3,631 | 1 | 5 | 5 | 1,161 | 3 | 191 | 142 | 333 | 0 | 1 | 0 | 0 | 2 | 0 |
| Independencia | 43,846 | 2,076.71 | 21 | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 1 | 16 | 15 | 31 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pedernales | 18,894 | 1,983.64 | 18 | 0 | 0 | 0 | | | 0 | 0 | 1 | 208 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUBREGION EL VALLE | 514,521 | 7,424.68 | 69 | 89 | 699 | 787 | 515,153 | 7,584 | 0 | 8 | 8 | 0 | 12 | 1,286 | 836 | 2,842 | 1 | 0 | 0 | 0 | 1 | 11 |
| Azuá | 185,987 | 2,589.89 | 74 | 31 | 228 | 251 | 124,749 | 2,781 | 0 | 0 | 0 | 0 | 10 | 1,886 | 772 | 1,778 | 0 | 0 | 0 | 0 | 0 | 0 |
| Elias Piña | 70,653 | 1,415.88 | 50 | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| San Juan | 257,961 | 3,499.71 | 74 | 57 | 479 | 536 | 398,484 | 4,803 | 0 | 0 | 0 | 0 | 2 | 288 | 64 | 264 | 1 | 0 | 0 | 0 | 1 | 1 |
| REGION CIBAO | 12,623,348 | 18,976.37 | 138 | 2,642 | 9,213 | 11,855 | 3,650,324 | 45,801 | 8 | 81 | 93 | 124,865 | 62 | 3,346 | 4,284 | 7,558 | 17 | 16 | 9 | 3 | 12 | 182 |
| SUBREGION CIBAO CENTRAL | 1,554,714 | 8,862.75 | 175 | 2,234 | 7,458 | 9,694 | 631,923 | 12,577 | 6 | 78 | 78 | 122,175 | 33 | 899 | 2,626 | 3,525 | 13 | 16 | 0 | 1 | 11 | 79 |
| Españat | 181,638 | 952.46 | 213 | 84 | 569 | 653 | | | 1 | 18 | 18 | 2,881 | 3 | 87 | 225 | 312 | 0 | 0 | 0 | 0 | 0 | 2 |
| La Vega | 383,828 | 2,207.23 | 132 | 277 | 947 | 1,224 | | | 1 | 20 | 32 | 7,283 | 16 | 464 | 438 | 982 | 1 | 0 | 1 | 0 | 0 | 6 |
| Monseñor Houel | 125,225 | 1,884.00 | 125 | 0 | 0 | 0 | 377,718 | 5,615 | 1 | 7 | 7 | 2,818 | 1 | 8 | 117 | 117 | 1 | 0 | 0 | 0 | 0 | 0 |
| Fuente Plata | 232,983 | 1,855.69 | 126 | 574 | 1,395 | 1,669 | | | 1 | 7 | 7 | 6,538 | 1 | 23 | 82 | 185 | 13 | 16 | 7 | 1 | 18 | 4 |
| Santiago | 711,848 | 2,863.37 | 249 | 1,299 | 4,549 | 5,848 | 254,163 | 6,962 | 2 | 22 | 22 | 4,423 | 12 | 325 | 1,764 | 2,889 | 0 | 0 | 0 | 0 | 1 | 67 |
| SUBREGION C. ORIENTAL | 727,988 | 5,272.32 | 138 | 289 | 1,247 | 1,536 | 2,383,836 | 23,829 | 1 | 8 | 6 | 889 | 14 | 437 | 530 | 957 | 4 | 8 | 1 | 2 | 1 | 17 |
| Duarte | 268,756 | 1,529.14 | 176 | 198 | 613 | 883 | 396,924 | 4,819 | 1 | 8 | 6 | 889 | 6 | 125 | 283 | 488 | 0 | 0 | 0 | 0 | 0 | 18 |
| Maria Idad. Sánchez | 129,184 | 1,255.18 | 102 | 67 | 272 | 339 | 1,487,474 | 15,952 | 0 | 0 | 0 | 0 | 1 | 45 | 55 | 188 | 1 | 0 | 1 | 1 | 0 | 2 |
| Salcedo | 113,399 | 435.30 | 261 | 32 | 362 | 394 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Sanana | 75,292 | 849.36 | 89 | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 3 | 68 | 97 | 157 | 3 | 0 | 0 | 1 | 1 | 1 |
| Sánchez Ramírez | 141,347 | 1,193.34 | 115 | 0 | 0 | 0 | 418,638 | 3,858 | 0 | 0 | 0 | 0 | 4 | 287 | 95 | 382 | 0 | 0 | 0 | 0 | 0 | 1 |
| SUBREGION C. OCCIDENTAL | 340,646 | 4,841.30 | 70 | 119 | 585 | 625 | 715,365 | 9,395 | 1 | 3 | 9 | 1,881 | 15 | 2,818 | 1,848 | 3,858 | 0 | 0 | 0 | 0 | 0 | 6 |
| Dajabón | 66,121 | 1,013.68 | 55 | 0 | 0 | 0 | 487,334 | 5,788 | 0 | 0 | 0 | 0 | 1 | 48 | 36 | 76 | 0 | 0 | 0 | 0 | 0 | 0 |
| Monte Cristi | 95,891 | 1,981.44 | 58 | 42 | 241 | 283 | | | 0 | 0 | 1 | 334 | 10 | 1,679 | 913 | 2,597 | 0 | 0 | 0 | 0 | 0 | 1 |
| Santiago Rodríguez | 65,616 | 1,111.25 | 59 | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Valverde | 113,818 | 815.88 | 140 | 77 | 265 | 342 | 228,831 | 3,687 | 1 | 3 | 3 | 1,547 | 4 | 291 | 94 | 385 | 0 | 0 | 0 | 0 | 0 | 4 |

1 Se refiere a : Desarrollo Turístico Mixto, Club Náutico, Plaza Turística, Casa de Huéspedes, Transporte Aéreo, Condohotel, Rent-A-Car, Compañías de Servicios Turísticos.

REF. : BANC8

FUENTE: ELABORADO EN EL DEPTO. DE PLANIFICACION REGIONAL EN BASE A INFORMACIONES DE:

OFICINA NACIONAL DE ESTADISTICAS, INSTITUTO AGRARIO DOMINICANO, SECRETARIAS DE ESTADO DE FINANZAS, INDUSTRIA Y COMERCIO, Y TUR29 de MAYO de 1998

Datos 5-2 Principales Indicadores Económicos

| Principales Indicadores Económicos | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 (Estimados) |
|--------------------------------------|--------------------|----------|----------|----------|-----------|---------------------|
| 1. PBI | [Miles de Dólares] | 3,488.6 | 3,512.7 | 3,685.2 | 3,468.4 | * |
| 2. Variación del PBI | [%] | 7.9 | 0.7 | 4.1 | -5.1 | * |
| 3. Población | [Miles Habitantes] | 6,584.9 | 6,715.8 | 6,887.4 | 7,019.1 | 7,320.4 |
| 4. PBI-per Capita | [%] | 493 | 519 | 511 | 525 | 483 |
| 5. Tasa Inflación Anual | [%] | 9.74 | 15.90 | 44.43 | 45.42 | 59.4 |
| Tasa Inflación Acum. | [% Base 1973=0] | 400.16 | 479.68 | 737.24 | 1,117.51 | 2,352.41 |
| 6. Tipo de Cambio | [RD\$ → Dólares] | 2.91 | 3.84 | 5.81 | 6.35 | 8.63 |
| 7. Salario Mínimo Nominal (Gobierno) | [RD\$] | 250.00 | 250.00 | 400.00 | 500.00 | - |
| 8. Desempleo | [%] | 24.7 | * | * | * | 23.0 |
| 9. Exportación | [Miles de Dólares] | 722.10 | 711.30 | 889.7 | 924.40 | 703.90 |
| 10. Importación | [Miles de Dólares] | 1,351.70 | 1,591.50 | 1,608.00 | 1,963.80 | 1,807.80 |
| 11. Balanza de Comercio | [Miles de Dólares] | -629.60 | -880.20 | -718.30 | -1,039.40 | -1,103.10 |
| 12. Deuda Externa | [Miles de Dólares] | * | 3,898.8 | 3,883.1 | 3,782.2 | * |
| 13. Reserva de Divisas | [Miles de Dólares] | 380.20 | 179.20 | 252.50 | 166.70 | 155.10 |
| 14. Rentas Anuales del Estado | [Miles de RD\$] | 2,515.40 | 3,085.40 | 4,780.40 | 6,059.30 | 4,585.90 |
| 15. Gastos Anuales del Estado | [Miles de RD\$] | 2,250.80 | 3,287.90 | 4,834.20 | 5,937.10 | 5,599.20 |

Fuente: Oficina Nacional de Planificación, Secretariado Técnico de la Presidencia

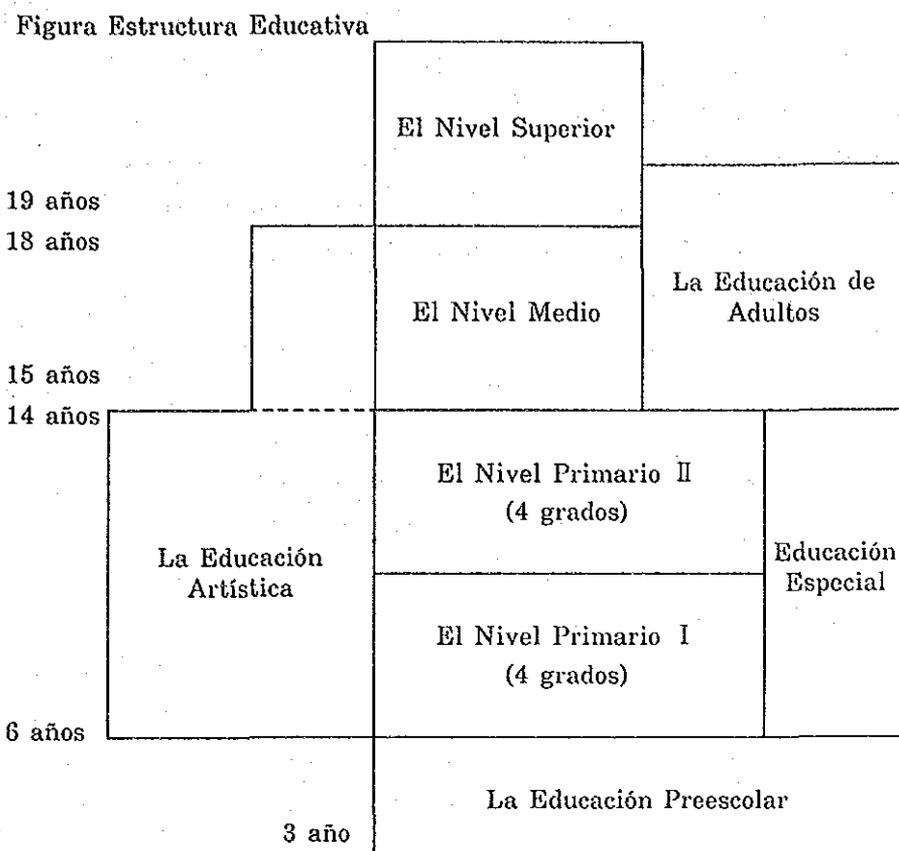
Datos 5-3 PBI por Sector

[Miles de Dólares]

| Sectores | 1986 | 1987 | 1988 | 1989 | 1990 | 1990 (Proporción) |
|---|-------------------|-------------------|-------------------|-------------------|--------------------|----------------------|
| 0. Total PBI (Variación) | 3,234.0 (3.2%) | 3,488.6 (7.9%) | 3,512.7 (0.7%) | 3,655.2 (4.1%) | 3,468.4 (-5.1%) | 100% |
| 1. Agropecuario (Variación) | 528.5 (-0.5%) | 543.8 (2.9%) | 536.6 (-1.3%) | 548.7 (2.3%) | 514.9 (-6.2%) | 14.9% |
| 2. Minería (Variación) | 119.7 (-11.1%) | 150.7 (25.9%) | 140.2 (-7.0%) | 139.3 (-0.6%) | 124.1 (-10.9%) | 3.6% |
| 3. Manufacturera (Variación) | 550.8 (7.0%) | 610.0 (10.7%) | 590.8 (-3.1%) | 603.7 (2.2%) | 550.3 (-8.8%) | 15.9% |
| 4. Construcción (Variación) | 221.8 (15.5%) | 297.4 (34.1%) | 306.9 (3.2%) | 347.5 (12.2%) | 293.5 (-15.5%) | 8.5% |
| 5. Comercio (Variación) | 504.3 (3.1%) | 539.1 (6.9%) | 526.7 (-2.3%) | 538.3 (2.2%) | 497.4 (-7.6%) | 14.3% |
| 6. Transporte (Variación) | 204.7 (2.2%) | 221.5 (8.2%) | 215.7 (-2.6%) | 220.4 (2.2%) | 203.0 (-7.9%) | 5.8% |
| 7. Comunicaciones (Variación) | 44.5 (7.5%) | 50.7 (13.9%) | 58.7 (15.8%) | 68.7 (17.0%) | 77.4 (12.7%) | 2.2% |
| 8. Electricidad (Variación) | 62.7 (5.6%) | 69.4 (10.7%) | 67.1 (-3.3%) | 61.4 (-8.5%) | 54.6 (-11.1%) | 1.6% |
| 9. Finanzas (Variación) | 136.7 (13.9%) | 150.7 (10.2%) | 174.2 (15.6%) | 205.6 (18.0%) | 222.6 (8.3%) | 6.4% |
| 10. Propiedad de viviendas (Variación) | 214.5 (1.1%) | 219.4 (2.3%) | 223.9 (2.1%) | 227.9 (1.8%) | 228.2 (0.1%) | 6.6% |
| 11. Gobierno (Variación) | 313.9 (-0.5%) | 314.6 (-5.2%) | 339.5 (7.9%) | 349.0 (2.8%) | 358.4 (2.7%) | 10.3% |
| 12. Otros servicios (Variación) | 313.9 (2.6%) | 321.3 (2.4%) | 332.4 (3.5%) | 344.7 (3.7%) | 344.0 (-0.2%) | 9.9% |

Fuente : Oficina Nacional de Planificación, Secretariado Técnico de la Presidencia

Datos 5-4 ASPECTOS DE LA ESTRUCTURA EDUCATIVA.



Para los fines del presente diagnóstico se define la Estructura Educativa como el esquema institucional que ofrece el país para atender el servicio educativo.

Al efecto en la República Dominicana la estructura educativa está constituida por tres niveles: Primario, Medio y Superior. Este último se rige por leyes especiales y el primario y medio con sus modalidades correspondientes, son administrados por la SEEBAC, así como, los diferentes tipos de educación que se ofertan en los mismos, tanto en lo formal como en lo no formal.

La educación preescolar es considerada en la Ley Orgánica de Educación, como la rama maternal y en la práctica va dirigida a la población de 3 a 6 años de edad y comprende los grados de maternal, kinder y preprimario con un año de duración cada uno.

El nivel primario comprende la educación básica que tiene como fin contribuir eficientemente al desarrollo de las potencialidades del educando y su integración dinámica en la vida social.

Es la de mayor prioridad para el Estado, tiene carácter de obligatoriedad establecido en la Constitución de la República (art. 8 No 16) y está dirigida a la población de 7 a 14 años de edad, comprende 8 años de escolaridad divididas en dos ciclos: básico, los primeros

4 grados y el superior, con los cuatro grados restantes. Al término del 8vo, a los estudiantes se les otorga un certificado de suficiencia en la educación básica.

Nivel medio, tiene como finalidad el desarrollo integral de la personalidad del adolescente, mediante la adquisición del patrimonio cultural y la comprensión del medio en que vive, la preparación para el cambio social y la participación en el mundo del trabajo.

Dicho nivel comprende diferentes ramas de la educación (académica, técnica, formación del magisterio primario) y está dirigida a la población que aprobó el 8vo. grado de la educación básica, tiene 4 años de escolaridad al final de los cuales se otorga un certificado de suficiencia de dichos estudios.

La educación de adultos tiene por finalidad el desarrollo integral del individuo ; la formación y capacitación para el trabajo productivo y el desarrollo de una conciencia reflexiva y crítica, que le permita desempeñar su rol en la problemática nacional. Está dirigida a la población de 14 años o más que no asistió a la educación regular o abandonó los estudios antes de terminar el nivel primario. Comprende 5 años de escolaridad, agrupados en 5 ciclos, al final del 5to. ciclo, se otorga un certificado de suficiencia equivalente al 8vo. grado de la Educación Básica.

Educación Especial está destinada a proporcionar educación diferenciada e individualizada a los educandos con características excepcionales y a los que manifiestan dificultad para avanzar a través de los programas de educación regular, con el propósito de desarrollar al máximo las potencialidades del educando excepcional. Este tipo de educación no tiene requisitos académicos de ingreso ni duración, por las características de la población a que va dirigida, los excepcionales considerados éstos como toda persona cuyo desarrollo biosico-social, se ubica por encima o por debajo del nivel promedio de su grupo de edad.

Educación Artística es un tipo de educación orientada a la formación teórica práctica de las diversas manifestaciones de las Bellas Artes (música, artes plásticas, arte escénico y danza). Está dirigida a la población de 6 a 14 años y de 14 años y más, conforme a la disciplina, requisitos y grado de especialización entre otros.

Datos 5-5 Datos Estadísticos sobre Educación

Cuadro 1 INFORMACIONES ESTADISTICAS POR NIVEL SEGUN DIRECCION REGIONAL 1990-1991

| DIRECCION REGIONAL | ESCUELAS PUBLICAS DE PRIMARIA | ESCUELAS PRIVADAS DE PRIMARIA | ESCUELAS PUBLICAS DE REFORMA Y TRAD | LICEOS PUBLICOS | LICEOS PRIVADOS | ESCUELAS DE EDUCACION ADULTOS | ESCUELAS DE CAPACITACION LABORAL | ESCUELAS DE EDUCACION ESPECIAL |
|--------------------|-------------------------------|-------------------------------|-------------------------------------|-----------------|-----------------|-------------------------------|----------------------------------|--------------------------------|
| BARAHONA | 286 | 16 | 26 | 8 | 48 | 1 | 1 | 1 |
| SAN JUAN | 383 | 20 | 20 | 4 | 43 | 5 | 0 | 0 |
| AZUA | 295 | 36 | 20 | 12 | 36 | 10 | 2 | 2 |
| SANTO DOMINGO | 275 | 753 | 115 | 249 | 172 | 70 | 16 | 16 |
| SAN PEDRO MACORIS | 674 | 92 | 36 | 35 | 66 | 0 | 3 | 3 |
| LA VAGA | 723 | 56 | 55 | 22 | 58 | 7 | 3 | 3 |
| SAN JUAN MARICOS | 660 | 41 | 30 | 38 | 78 | 3 | 2 | 2 |
| SANTIAGO | 703 | 154 | 54 | 59 | 56 | 12 | 3 | 3 |
| VALVERDE MAO | 403 | 20 | 47 | 7 | 59 | 3 | 1 | 1 |
| TOTAL | 4,669 | 1,190 | 403 | 434 | 616 | 111 | 31 | 31 |

FUENTE: DEPARTAMENTO DE ESTADISTICAS, SEEBAC.

Cuadro 3 POBLACION DEMOGRAFICA, ALUMNOS EN LAS AULAS Y POBLACION FUERA DE LAS AULAS EN EL GRUPO DE EDAD 7-14 AÑOS

| AÑOS | POBLACION DEMOGRAFICA 7-14 AÑOS | ALUMNOS EN LAS AULAS 7-14 AÑOS | POBLACION FUERA DE LAS AULAS 7-14 AÑOS (%) |
|---------|---------------------------------|--------------------------------|--|
| 1980/81 | 1,240,970 | 1,038,481 | 202,489 (16.3) |
| 1981/82 | 1,247,067 | 1,076,548 | 170,519 (13.6) |
| 1982/83 | 1,253,164 | 1,114,148 | 139,016 (11.1) |
| 1983/84 | 1,259,262 | 1,152,596 | 106,666 (8.5) |
| 1984/85 | 1,265,359 | 1,108,947 | 156,412 (12.4) |
| 1985/86 | 1,257,543 | 1,091,948 | 183,559 (14.6) |
| 1986/87 | 1,305,095 | 1,168,924 | 136,171 (10.4) |
| 1987/88 | 1,354,445 | 1,251,285 | 103,160 (7.6) |
| 1988/89 | 1,405,661 | 1,339,449 | 66,212 (4.7) |
| 1989/90 | 1,458,814 | 1,433,746 | 25,068 (1.7) |

FUENTE: DEPARTAMENTO DE ESTADISTICAS, SEEBAC.

Cuadro 2 ESTADISTICAS EDUCATIVAS POR ZONA SEGUN DIRECCION REGIONAL ; NIVEL PRIMARIO, SECTOR PUBLICO, 1988-1989

| DIRECCION REGIONAL | ALUMNOS MATRICULADOS | | CENTROS DOCENTES | | AULAS | | ASIENTOS | | PROFESORES | | | | |
|--------------------|----------------------|---------|------------------|--------|-------|-------|----------|--------|------------|----------|--------|-------|--------|
| | URBANA | RURAL | TOTAL | URBANA | RURAL | TOTAL | URBANA | RURAL | CON TIT. | SIN TIT. | TOTAL | | |
| BARAHONA | 31,775 | 25,293 | 57,068 | 44 | 225 | 269 | 599 | 574 | 31,477 | (65.2) | 1,310 | 108 | 1,418 |
| SAN JUAN | 20,023 | 50,665 | 70,688 | 23 | 337 | 360 | 325 | 791 | 29,017 | (44.1) | 1,166 | 98 | 1,264 |
| AZUA | 24,713 | 42,600 | 67,313 | 28 | 265 | 293 | 307 | 804 | 39,644 | (58.9) | 1,118 | 116 | 1,234 |
| SANTO DOMINGO | 170,290 | 101,677 | 271,967 | 79 | 710 | 789 | 2,692 | 1,752 | 161,522 | (59.4) | 5,387 | 525 | 5,912 |
| SAN PEDRO MACORIS | 39,751 | 46,485 | 86,236 | 57 | 479 | 536 | 468 | 1,050 | 51,694 | (59.9) | 1,472 | 179 | 1,651 |
| LA VAGA | 41,820 | 112,731 | 154,551 | 43 | 636 | 699 | 688 | 4,159 | 84,884 | (54.9) | 2,809 | 316 | 3,125 |
| SAN JUAN MARICOS | 31,697 | 90,010 | 122,707 | 34 | 622 | 656 | 572 | 1,785 | 64,010 | (52.2) | 2,472 | 178 | 2,650 |
| SANTIAGO | 56,128 | 81,131 | 137,259 | 65 | 597 | 662 | 873 | 1,745 | 78,151 | (56.9) | 2,828 | 161 | 2,989 |
| VALVERDE MAO | 22,570 | 41,696 | 64,266 | 41 | 364 | 405 | 418 | 1,062 | 42,564 | (66.3) | 1,484 | 123 | 1,607 |
| TOTAL | 438,767 | 593,288 | 1,032,055 | 414 | 4,255 | 4,669 | 6,942 | 13,772 | 582,963 | (56.5) | 20,046 | 1,804 | 21,850 |

FUENTE: DEPARTAMENTO DE ESTADISTICAS, SEEBAC.

Gobierno resolverá interferencia TV

LEONCIO COMPRES

El director general de Telecomunicaciones, licenciado Leopoldo Díaz, anunció que ese organismo regularizará la situación que envuelve a los canales 6 del Circuito Independencia y 5 de Radiotelevisión Dominicana, ya que el gobierno no ha autorizado la operación de canales adyacentes.

Díaz aseguró que la situación de adyacencia que se produce entre los dos canales está en un proceso de definición y que la decisión final se tomará con apego a las leyes que rigen la materia, como es tradición de la institución que dirige.

El funcionario dio esas explicaciones al asistente del Ministro de Comunicaciones de Japón, Takayoshi Kawai, quien encabeza una misión de técnicos de esa nación que estudian la posibilidad de rehabilitar a Radio Televisión Dominicana.

Kawai dijo que las explicaciones del director de Telecomunicaciones respecto a la adyacencia de los canales 6 y 5, le daban tranquilidad para continuar con el desarrollo de su misión.

Dato 5-7 Precios de los Principales Artículos de Vida
y Tarifas de los Servicios Públicos

| Precios de los Principales Artículos de Vida | | |
|---|---------|----------------|
| Partida | Unidad | Precio en RD\$ |
| 1. Harina | 1 Lb | 11.25 |
| 2. Arroz | 1 Lb | 4.50 |
| 3. Sal | 1 kg | 0.75 |
| 4. Azúcar | 1 Lb | 3.50 |
| 5. Cerveza | 633 ml | 12.50 |
| 6. Carne de Romo | 1 Lb | 23.00 |
| 7. Gasolina | 1 Galon | 20.00 |
| 8. Tubo Fluorescente (20 W) | 1 | 34.00 |
| 9. Receptor de Radio 1) Tipo Portátil de AM 2) Tipo de AM/FM 3) Tipo de Radio cassette de Estereofonía | | 140.00 |
| | | 200.00 |
| | | 1,475.00 |
| 10. Receptor de TV 1) 14 Pulgadas 2) 21 Pulgadas | | 5,575.00 |
| | | 14,000.00 |
| 11. Pila (Grande) | 1.5V | 10.00 |

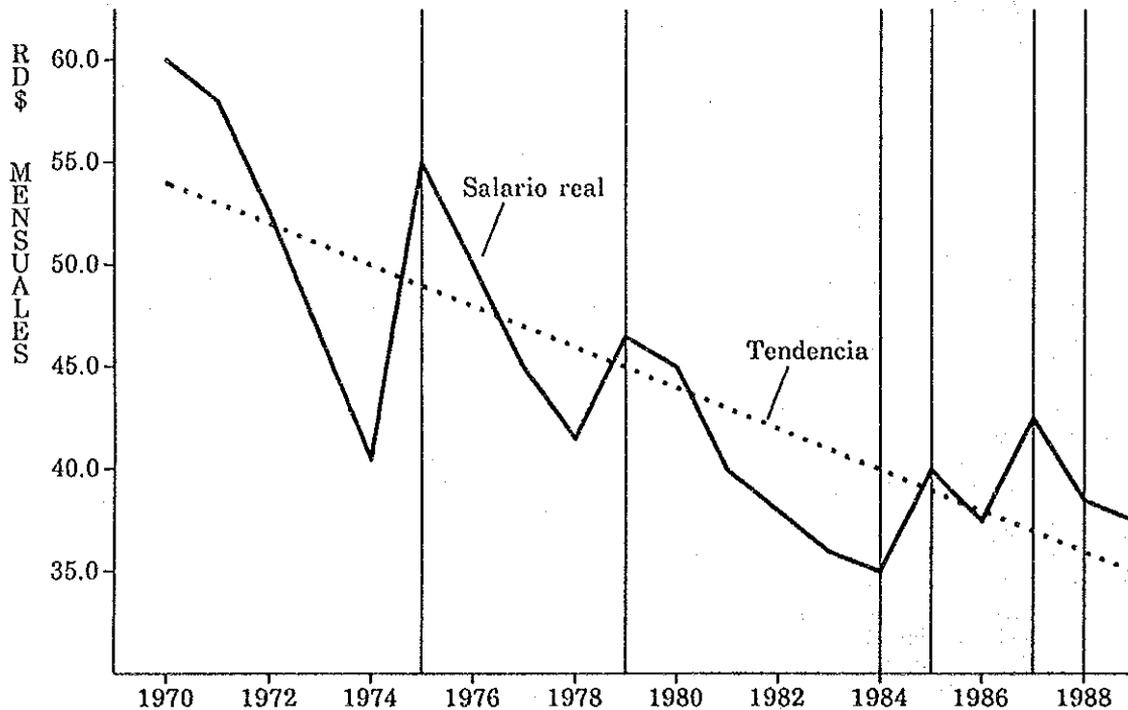
| Tarifas Servicios Públicos | | |
|---|-------------------------------------|----------------|
| Partida | Unidad | Precio en RD\$ |
| 1. Tarifa de Electricidad | 1 kWh | 0.28 |
| 2. Tarifa de Agua | | 35.00 |
| 3. Tarifa de Teléfono | menos de 30 km | 14.84 |
| 4. Periódico | | 4.00 |
| 5. Tarifa de Autobús | 10 km | 2.00 |
| 6. Tarifa de Taxi | Servicio Mínimo Dentro de Ciudad | 40.00 |
| 7. Cuota de Enseñanza 1) Intermedia 2) Secundaria 3) Universidad | 1 Año | — |
| | 1 Año | — |
| | 1 Año | 288.00 |

Dato 5-8 Salario Mínimo

| Evolucion del Salario Real en la Economia Dominicana (En RD\$ mensuales) | | | | | |
|---|------------------------|-------------------|--|---|-------------------|
| Final de ano* | Salario Mínimo Nominal | | Indice Precios al Consumidor (Base: 1970) | Salario minimo real (En pesos de 1970) | |
| | Gobierno | Sector Privado | | Gobierno | Sector Privado |
| 1970 | 60 | 60 | 100.0 | 60 | 60 |
| 1971 | 60 | 60 | 104.3 | 58 | 58 |
| 1972 | 60 | 60 | 112.5 | 53 | 53 |
| 1973 | 60 | 60 | 129.5 | 46 | 46 |
| 1974 | 60 | 60 | 146.5 | 41 | 41 |
| 1975 | 90 | 90 | 167.7 | 54 | 54 |
| 1976 | 90 | 90 | 180.9 | 50 | 50 |
| 1977 | 90 | 90 | 204.0 | 44 | 44 |
| 1978 | 90 | 90 | 214.4 | 42 | 42 |
| 1979 | 125 | 125 | 270.5 | 46 | 46 |
| 1980 | 125 | 125 | 286.6 | 44 | 44 |
| 1981 | 125 | 125 | 309.6 | 40 | 40 |
| 1982 | 125 | 125 | 331.8 | 38 | 38 |
| 1983 | 125 | 125 | 349.2 | 36 | 36 |
| 1984 | 175 | 175 | 493.2 | 35 | 35 |
| 1985 | 250 | 250 | 633.0 | 39 | 39 |
| 1986 | 250 | 250 | 674.3 | 37 | 37 |
| 1987 | 250 | 350 | 843.0 | 30 | 42 |
| 1988 | 400 | 500 | 1,328.0 | 30 | 38 |
| 1989 | 500 | 700 | 1,888.5 | 26 | 37 |

* Hasta 1977 el Indice de Precios se refiere al promedio del año.

TENDENCIA DE LA EVOLUCION DEL SALARIO MINIMO REAL EN EL SECTOR PRIVADO
(En RD\$ de 1970)



Nota: Las líneas verticales indican los años en que se hicieron reajustes.

Apéndice-6 Datos meteorológicos

Atto: Dra. Bertha Victoria

REPUBLICA DOMINICANA
SECRETARIA DE ESTADO DE AGRICULTURA
OFICINA NACIONAL DE METEOROLOGIA
DIVISION DE CLIMATOLOGIA

DN-CLIM-88

INFORMACION CLIMATOLOGICA SUMINISTRADA A:

Radio Televisión Dominicana

DATOS: De Temperatura, Precipitación, Viento y Humedad Relativa de Santiago, Puerto Plata
Santo Domingo, La Romana, Constanza y Alto Bandera.

PARA LOS FINES DE: Utilidad para su actividad.-

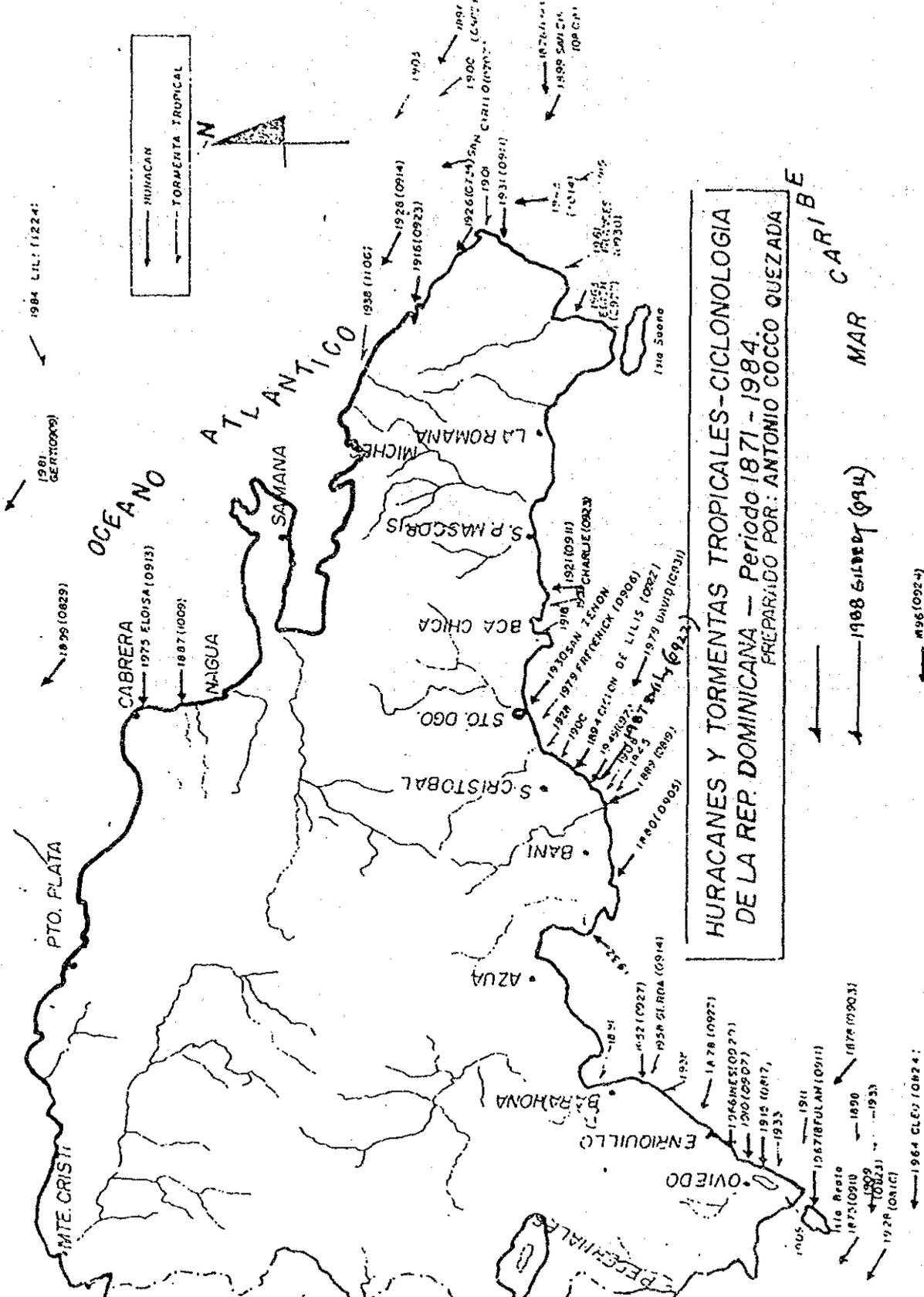
NOTA: La estación La Romana , Alto Bandera no poseen datos de viento ni de Humedad por ser
estaciones termopluviométricas. Alto Bandera es estación descontinuada, lo mismo que
Puerto Plata -

Mejia
LIC. MERCEDES MEJIA
c. División de Climatología



Antonio Cocco Quezada
LIC. ANTONIO COCCO QUEZADA
Director Nacional

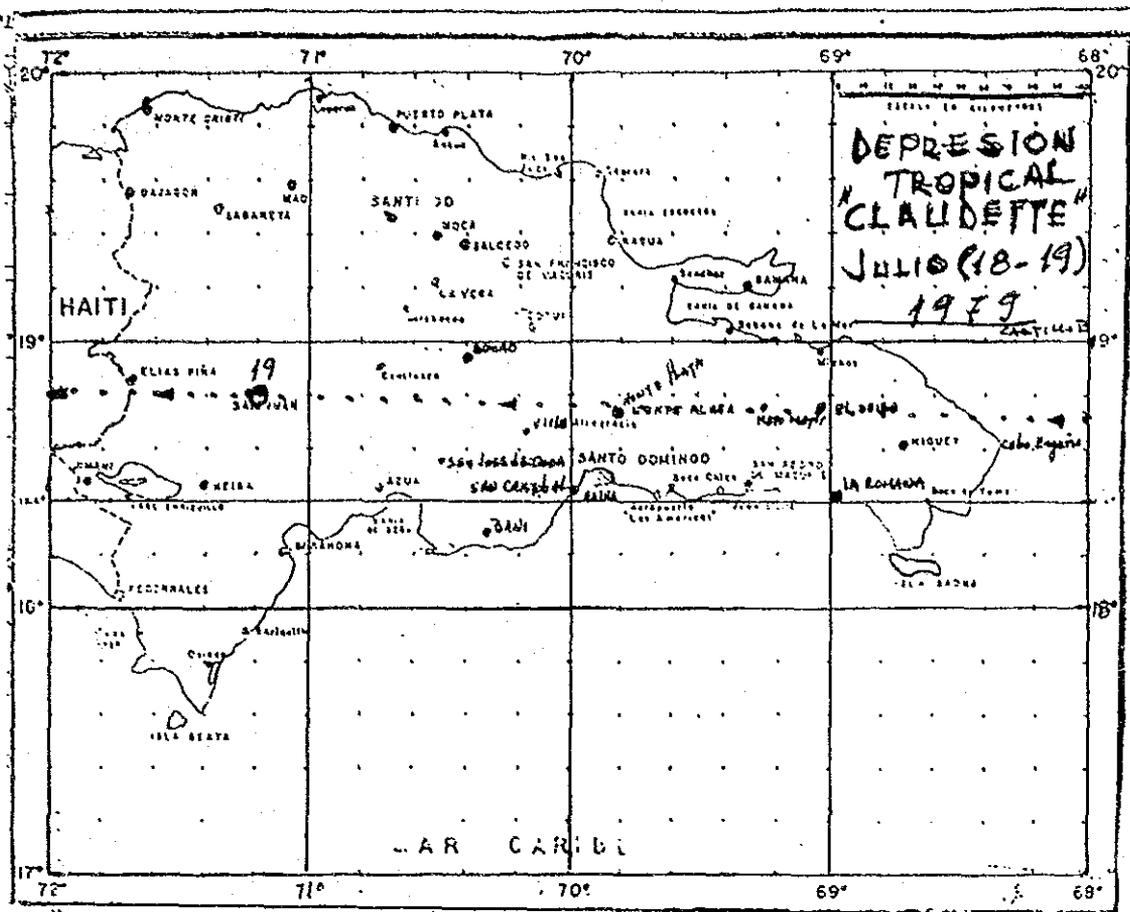
FECHA: APR. 20 1991



HURACANES Y TORMENTAS TROPICALES-CICLONOLOGIA DE LA REP. DOMINICANA - Período 1871 - 1984.
 PREPARADO POR: ANTONIO COCCO QUEZADA

Map showing the paths of tropical storms and hurricanes in the Dominican Republic from 1871 to 1984. The map includes major cities and regions: Pto. Plata, Azua, Santo Domingo, Santiago, and the provinces of Pinar del Río, Matanzas, Ciego de Avila, Sancti Spiritus, Santiago, San Pedro de Macoris, and Santo Domingo. The map is labeled with the names of the storms and their years, such as: 1871 (LILIS), 1872 (LILIS), 1873 (LILIS), 1874 (LILIS), 1875 (LILIS), 1876 (LILIS), 1877 (LILIS), 1878 (LILIS), 1879 (LILIS), 1880 (LILIS), 1881 (LILIS), 1882 (LILIS), 1883 (LILIS), 1884 (LILIS), 1885 (LILIS), 1886 (LILIS), 1887 (LILIS), 1888 (LILIS), 1889 (LILIS), 1890 (LILIS), 1891 (LILIS), 1892 (LILIS), 1893 (LILIS), 1894 (LILIS), 1895 (LILIS), 1896 (LILIS), 1897 (LILIS), 1898 (LILIS), 1899 (LILIS), 1900 (LILIS), 1901 (LILIS), 1902 (LILIS), 1903 (LILIS), 1904 (LILIS), 1905 (LILIS), 1906 (LILIS), 1907 (LILIS), 1908 (LILIS), 1909 (LILIS), 1910 (LILIS), 1911 (LILIS), 1912 (LILIS), 1913 (LILIS), 1914 (LILIS), 1915 (LILIS), 1916 (LILIS), 1917 (LILIS), 1918 (LILIS), 1919 (LILIS), 1920 (LILIS), 1921 (LILIS), 1922 (LILIS), 1923 (LILIS), 1924 (LILIS), 1925 (LILIS), 1926 (LILIS), 1927 (LILIS), 1928 (LILIS), 1929 (LILIS), 1930 (LILIS), 1931 (LILIS), 1932 (LILIS), 1933 (LILIS), 1934 (LILIS), 1935 (LILIS), 1936 (LILIS), 1937 (LILIS), 1938 (LILIS), 1939 (LILIS), 1940 (LILIS), 1941 (LILIS), 1942 (LILIS), 1943 (LILIS), 1944 (LILIS), 1945 (LILIS), 1946 (LILIS), 1947 (LILIS), 1948 (LILIS), 1949 (LILIS), 1950 (LILIS), 1951 (LILIS), 1952 (LILIS), 1953 (LILIS), 1954 (LILIS), 1955 (LILIS), 1956 (LILIS), 1957 (LILIS), 1958 (LILIS), 1959 (LILIS), 1960 (LILIS), 1961 (LILIS), 1962 (LILIS), 1963 (LILIS), 1964 (LILIS), 1965 (LILIS), 1966 (LILIS), 1967 (LILIS), 1968 (LILIS), 1969 (LILIS), 1970 (LILIS), 1971 (LILIS), 1972 (LILIS), 1973 (LILIS), 1974 (LILIS), 1975 (LILIS), 1976 (LILIS), 1977 (LILIS), 1978 (LILIS), 1979 (LILIS), 1980 (LILIS), 1981 (LILIS), 1982 (LILIS), 1983 (LILIS), 1984 (LILIS).

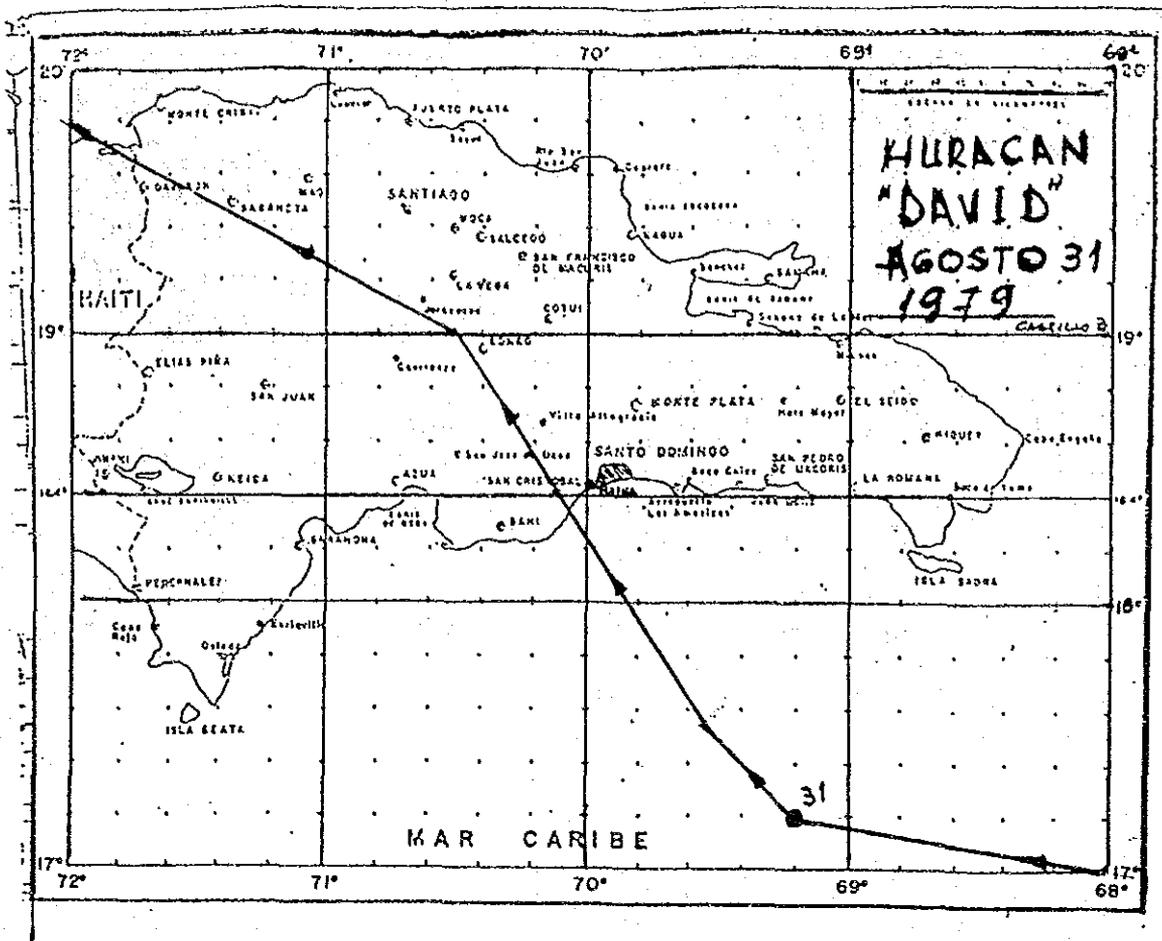
100 Kilómetros



45. - DESPRESION TROPICAL CLAUDETTE:

PENETRO A LA REPUBLICA DOMINICANA POR LA REGION ORIENTAL A UNOS 15 KILOMETROS AL NOPOESTE DE CABO ENGANO EN DIRECCION OESTE, PASANDO POR EL SEYBO, HATO MAYOR, MONTE PLATA AL NORTE DE VILLA ALTAGRACIA, AL SUR DE CANSTANZA, POR SAN JUAN DE LA HAGUANA, SALIENDO A UNOS 5 KILOMETROS AL SUR DE ELIAS PINA, LOS DIAS 18 Y 19 DE JULIO. OCASIONO PERDIDAS EN LA AGRICULTURA, EN LAS PROPIEDADES Y EN VIDAS HUMANAS. -

VIENTOS MAXIMOS SOSTENIDOS MAYORES DE 56 Y MENOS DE 63 KILOMETROS POR HORAS. OLAS MAYORES DE 8 Y MENORES DE 12 PIES. -

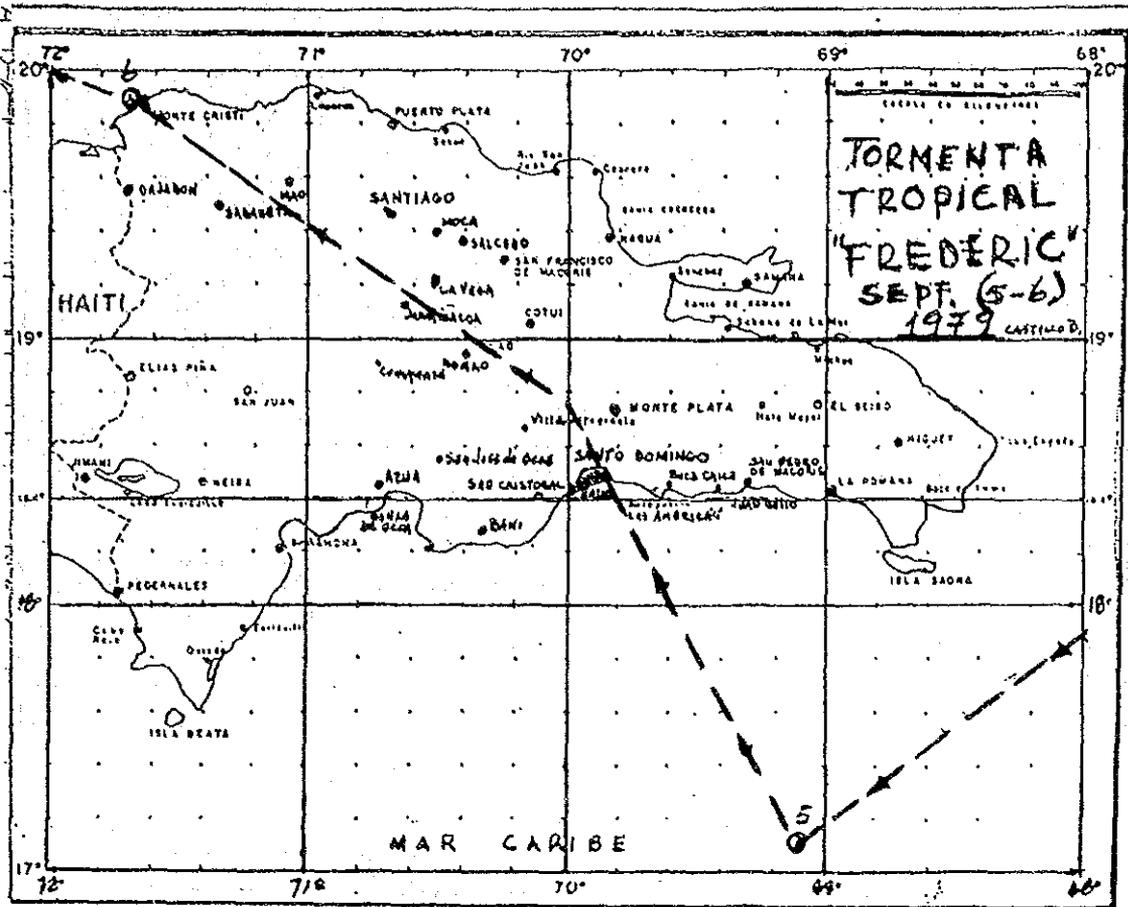


46.- HURACAN **DAVID**:

PENETRO A LA REPUBLICA DOMINICANA EN DIRECCION NOROESTE POR SAN CRISTOBAL, PASANDO PROXIMO A VILLA ALTAGRACIA, BONA0 Y A UNOS 20 KILOMETROS AL NOROESTE DE ESTA COMUNIDAD, GIRO HACIA EL OESTE/NOROESTE, PASANDO CERCA DE JARABACOA, SABANETA. SALIENDO ENTRE DAJABON Y MONTE CRISTI EL DIA 31 DE AGOSTO DE 1979

OCASIONO PERDIDAS CUANTIOSAS A LA AGRICULTURA; LAS PROPIEDADES ASI COMO VARIOS CIENTOS DE MUERTOS. LOS GOBIERNOS EXTRANJEROS OFRECIERON AYUDA A LA REPUBLICA DOMINICANA DECLARADA EN ZONA DE EMERGENCIA POR LOS EFECTOS DESTRUCTORES QUE LE OCASIONARON UNOS DE LO MAS INTENSO HURACANES QUE HASTA ENTONCE HABIAN AZOTADOS A LA REPUBLICA DOMINICANA EN ESTE SIGLO. -

VIENTOS MAXIMOS SOSTENIDOS EN UNOS 240 KILOMETROS POR HORAS. PRESION MINIMA CENTRAL 928 MILIBARES. OLAS MAYORES DE 15 PIES. -



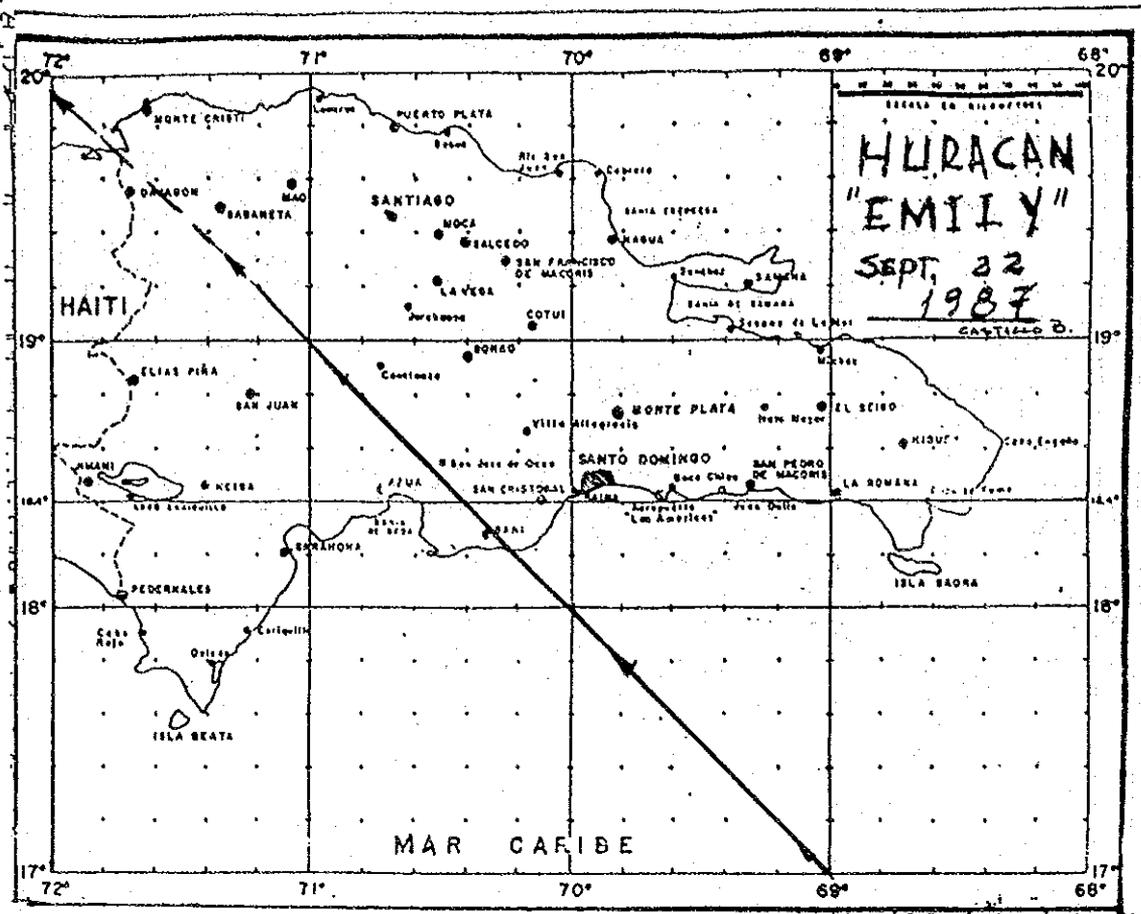
47.- TORMENTA TROPICAL *FRÉDERIC*:

VIENTOS MAXIMOS SOSTENIDOS EN UNOS 100 KILOMETROS POR HORA. OLAS MAYORES DE 10 Y MENORES DE 15 PIES.

PENETRO A LA REPUBLICA DOMINICANA POR SANTO DOMINGO EN DIRECCION NOROESTE, PASANDO ENTRE VILLA ATÁGRACIA Y MONTE PLATA, GIRANDO EN ESE ENTORNO HACIA EL NOROESTE, PASANDO PROXIMO A BONAÓ, JARABACOA, MAÓ, SALIENDO POR MONTE CRISTI LOS DÍAS 5 Y 6 DE SEPTIEMBRE DE 1979.-

OCASIONO MUCHA PRECIPITACIONES QUE JUNTO A LO QUE HABIA HECHO CLAUDETTE, Y DAVID, FRÉDERIC FUE EL COMPLEMENTO DE DESTRUCCION Y MUERTES, PARA GRAN PARTE DE LA REPUBLICA DOMINICANA.

LOS DANOS FUERON CUANTIOSOS AL IGUAL QUE LAS PERDIDAS DE VIDAS.



49.- HURACAN EMELY.-

PENETRO A LA REPUBLICA DOMINICANA EN DIRECCION NOROESTE POR BANI, PASANDO PROXIMO A SAN JOSE DE OCA Y A UNOS 40 KILOMETROS AL ESTE DE CONSTANZA Y GENERANDO EN TORMENTA TROPICAL A UNOS 40 KILOMETROS AL NORTE DE SAN JUAN DE LA MAGUANA, PASANDO CERCA DE SABANETA Y SALIENDO A UNOS 20 KILOMETROS AL NORTE DE DAJABON. EL DIA 22 DE SEPTIEMBRE DE 1987.-
 OCASIONO DANOS A LA AGRICULTURA, ASI COMO A LAS PROPIEDADES DE ALGUNOS MILLONES DE DOLARES. SE REPORTO LA MUERTE DE 7 (UNA) PERSONA.-

VIENTOS MAXIMOS ESTIMADOS EN 220 KILOMETROS POR HORA. PRESION MINIMA CENTRAL 958 MILIBARES, OLAS MAYORES DE 15 PIES.-

OFICINA NACIONAL DE METEOROLOGIA
 DIVISION DE CLIMATOLOGIA - SECCION DE COMPUTOS

TOTALES MENSUALES DE LLUVIA EN MILIMETROS

Estación: SANTO DOMINGO

| AÑO | ENE | FEB | MAR | ABR | MAY | JUN | JUL | AGO | SEP | OCT | NOV | DIC | TOTAL |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1961 | 29.0 | 78.7 | 101.7 | 82.0 | 212.9 | 129.0 | 297.2 | 195.9 | 72.9 | 353.2 | 67.1 | 111.1 | 1691.7 |
| 1962 | 78.4 | 15.1 | 22.9 | 132.7 | 92.7 | 182.7 | 121.1 | 253.0 | 95.9 | 107.0 | 34.5 | 47.1 | 1193.1 |
| 1963 | 187.7 | 22.7 | 116.8 | 151.2 | 268.3 | 137.3 | 133.4 | 105.1 | 149.0 | 239.9 | 109.1 | 93.6 | 1781.3 |
| 1964 | 37.0 | 25.4 | 20.8 | 117.0 | 102.4 | 93.4 | 172.9 | 127.3 | 186.4 | 77.7 | 49.7 | 59.6 | 1059.6 |
| 1965 | 3.5 | 16.1 | 22.4 | 14.2 | -- | 91.4 | 102.4 | 125.5 | 232.8 | 191.2 | 59.1 | 49.6 | ----- |
| 1966 | 60.6 | 12.1 | 85.9 | 127.9 | 244.3 | 92.0 | 134.3 | 183.9 | 113.0 | 215.0 | 141.0 | 28.4 | 1438.3 |
| 1967 | 62.5 | 43.2 | 43.7 | 67.4 | 41.9 | 97.7 | 125.9 | 138.8 | 135.4 | 48.6 | 35.9 | 47.9 | 870.0 |
| 1968 | 17.0 | 62.0 | 20.7 | 23.5 | 61.9 | 150.3 | 111.0 | 98.9 | 148.6 | 30.8 | 111.2 | 86.0 | 922.0 |
| 1969 | 21.1 | 3.3 | 27.8 | 45.4 | 213.2 | 239.5 | 63.7 | 177.7 | 114.2 | 255.3 | 125.5 | 40.7 | 1283.4 |
| 1970 | 118.5 | 119.3 | 4.0 | 7.3 | 173.2 | 349.7 | 249.4 | 315.7 | 133.4 | 286.1 | 68.9 | 58.7 | 1884.1 |
| 1971 | 37.3 | 64.5 | 38.0 | 104.2 | 95.2 | 93.0 | 172.1 | 231.7 | 45.1 | 235.9 | 46.5 | 69.4 | 1249.8 |
| 1972 | 56.6 | 42.7 | 47.6 | 87.6 | 292.3 | 159.5 | 83.0 | 122.6 | 155.2 | 212.5 | 37.4 | 119.1 | 1420.2 |
| 1973 | 40.2 | 37.2 | 45.0 | 13.8 | 108.5 | 56.8 | 97.8 | 177.5 | 132.7 | 203.6 | 35.6 | 63.1 | 1089.7 |
| 1974 | 120.2 | 42.8 | 16.9 | 60.1 | 60.4 | 76.4 | 101.9 | 126.1 | 200.3 | 172.5 | 70.1 | 33.1 | 1080.8 |
| 1975 | 35.9 | 16.5 | 26.6 | 21.6 | 86.1 | 22.2 | 98.6 | 139.9 | 564.9 | 179.1 | 130.1 | 137.3 | 1453.7 |
| 1976 | 44.3 | 141.5 | 67.8 | 9.3 | 37.9 | 80.2 | 92.3 | 127.0 | 124.9 | 211.8 | 26.6 | 65.3 | 1028.9 |
| 1977 | 23.9 | 7.9 | 17.1 | 69.2 | 497.5 | 93.7 | 119.4 | 339.2 | 159.3 | 237.8 | 217.1 | 233.4 | 1967.5 |
| 1978 | 23.4 | 19.2 | 85.4 | 147.6 | 161.9 | 85.5 | 149.6 | 102.4 | 97.5 | 246.6 | 129.3 | 53.6 | 1309.9 |
| 1979 | 27.8 | 27.3 | 66.7 | 21.2 | 244.0 | 312.8 | 345.9 | 363.2 | 493.2 | 129.0 | 171.2 | 36.1 | 2232.6 |
| 1980 | 56.5 | 15.5 | 41.6 | 49.3 | 396.9 | 48.6 | 121.7 | 180.4 | 107.9 | 162.6 | 38.4 | 119.3 | 1257.8 |
| 1981 | 91.1 | 101.2 | 78.2 | 34.6 | 404.3 | 239.6 | 168.7 | 232.5 | 83.4 | 87.2 | 29.1 | 82.3 | 1623.2 |
| 1982 | 92.7 | 33.3 | 19.2 | 31.3 | 358.9 | 159.5 | 132.6 | 78.1 | 118.6 | 115.7 | 94.2 | 44.3 | 1279.7 |
| 1983 | 34.5 | .8 | 57.1 | 30.1 | 337.4 | 64.3 | 194.7 | 195.3 | 129.2 | 124.3 | 93.2 | 123.4 | 1355.0 |
| 1984 | 117.4 | 106.3 | 11.6 | 27.9 | 121.2 | 169.5 | 193.3 | 116.9 | 242.2 | 154.9 | 29.5 | 50.9 | 1331.5 |
| 1985 | 48.5 | 94.6 | 98.4 | 37.3 | 218.2 | 8.2 | 124.2 | 125.2 | 430.1 | 371.4 | 233.3 | 29.7 | 1749.3 |
| 1986 | 134.3 | 27.5 | 26.0 | 113.6 | 363.4 | 449.1 | 76.5 | 79.8 | 136.6 | 79.8 | 294.4 | 36.0 | 1915.0 |
| 1987 | 9.1 | 191.2 | 41.9 | 261.5 | 89.3 | 217.7 | 162.4 | 169.7 | 195.6 | 159.2 | 97.7 | 427.8 | 2003.1 |
| 1988 | 33.3 | 82.4 | 190.7 | 237.7 | 91.2 | 130.6 | 212.5 | 422.9 | 225.3 | 146.5 | 226.0 | 61.4 | 2024.6 |
| 1989 | 124.6 | 217.3 | 141.0 | 39.4 | 68.9 | 102.1 | 115.9 | 145.0 | 367.8 | 114.3 | 111.5 | 39.6 | 1613.6 |
| PROM. | 50.5 | 57.5 | 53.9 | 73.9 | 192.5 | 142.1 | 147.1 | 177.5 | 134.8 | 171.8 | 99.6 | 93.6 | 1446.7 |

El signo " -- " indica que no hay datos en esa fecha



10112 G.M.

OFICINA NACIONAL DE METEOROLOGIA
 DIVISION DE CLIMATOLOGIA - SECCION DE COMPUTOS

TEMPERATURA MAXIMA MEDIA EN °C

Estación: SANTO DOMINGO

| AÑO | ENE | FEB | MAR | ABR | MAY | JUN | JUL | AGO | SEP | OCT | NOV | DIC | PROM. |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 1951 | 29.5 | 29.6 | 29.9 | 29.5 | 29.9 | 30.1 | 31.3 | 31.3 | 31.2 | 30.6 | 29.4 | 29.1 | 30.0 |
| 1962 | 29.3 | 29.2 | 30.1 | 30.2 | 29.8 | 30.5 | 30.9 | 30.9 | 30.8 | 30.9 | 30.2 | 29.6 | 30.2 |
| 1963 | 29.2 | 29.7 | 29.7 | 29.9 | 29.7 | 29.7 | 29.8 | 31.1 | 30.7 | 30.3 | 30.2 | 30.2 | 29.9 |
| 1964 | 29.1 | 29.3 | 30.1 | 28.8 | 30.4 | 30.4 | 30.9 | 31.2 | 31.3 | 30.5 | 30.3 | 28.0 | 30.1 |
| 1965 | 28.9 | 29.3 | 29.8 | 30.8 | 30.9 | 30.5 | 30.5 | 31.0 | 31.0 | 31.2 | 30.2 | 29.3 | 30.2 |
| 1966 | 29.4 | 29.7 | 29.2 | 29.6 | 29.6 | 29.5 | 31.3 | 31.8 | 31.5 | 30.9 | 29.9 | 29.5 | 30.2 |
| 1967 | 29.9 | 28.9 | 30.2 | 30.3 | 31.1 | 31.1 | 31.6 | 31.9 | 31.3 | 31.8 | 32.1 | 30.5 | 30.8 |
| 1968 | 29.2 | 28.4 | 29.9 | 30.6 | 30.6 | 30.6 | 31.1 | 31.7 | 31.1 | 31.5 | 31.2 | 29.1 | 30.4 |
| 1969 | 28.9 | 28.5 | 29.5 | 31.1 | 31.0 | 30.9 | 31.4 | 31.9 | 31.7 | 31.1 | 30.1 | 29.2 | 30.2 |
| 1970 | 28.9 | 29.0 | 29.8 | 31.2 | 30.4 | 30.3 | 31.0 | 31.2 | 31.2 | 30.6 | 29.8 | 28.9 | 30.2 |
| 1971 | 29.1 | 29.1 | 29.7 | 29.7 | 30.4 | 30.7 | 30.7 | 30.8 | 31.4 | 30.9 | 30.2 | 29.6 | 30.2 |
| 1972 | 29.7 | 28.9 | 29.5 | 31.3 | 30.1 | 31.2 | 32.7 | 32.2 | 32.2 | 32.2 | 31.9 | 30.5 | 30.9 |
| 1973 | 30.5 | 29.7 | 30.7 | 31.5 | 31.2 | 32.1 | 32.0 | 31.9 | 31.7 | 30.8 | 30.4 | 29.0 | 30.9 |
| 1974 | 29.2 | 29.2 | 29.8 | 30.5 | 30.3 | 31.5 | 31.4 | 31.5 | 30.9 | 31.4 | 30.6 | 30.3 | 30.5 |
| 1975 | 29.9 | 29.4 | 29.5 | 30.9 | 31.7 | 32.2 | 32.1 | 32.7 | 31.4 | 31.4 | 31.1 | 28.1 | 30.9 |
| 1976 | 29.2 | 28.9 | 28.4 | 30.0 | 31.2 | 31.2 | 31.5 | 32.1 | 31.9 | 31.8 | 31.7 | 30.8 | 30.7 |
| 1977 | 29.5 | 30.5 | 30.9 | 30.7 | 30.9 | 31.5 | 31.2 | 31.7 | 32.3 | 31.9 | 31.4 | 29.8 | 30.9 |
| 1978 | 29.5 | 29.5 | 31.7 | 30.1 | 30.9 | 31.2 | 31.9 | 31.7 | 31.9 | 31.2 | 30.8 | 30.5 | 30.8 |
| 1979 | 29.6 | 30.2 | 29.5 | 30.3 | 30.5 | 30.8 | 31.6 | 31.7 | 30.9 | 31.3 | 30.9 | 30.1 | 30.6 |
| 1980 | 29.6 | 29.7 | 30.0 | 30.6 | 31.9 | 32.2 | 32.2 | 32.0 | 32.5 | 31.9 | 31.9 | 30.6 | 31.2 |
| 1981 | 29.7 | 29.7 | 29.6 | 30.9 | 30.2 | 30.6 | 31.6 | 31.4 | 31.9 | 31.4 | 31.4 | 31.3 | 30.7 |
| 1982 | 29.5 | 29.6 | 29.8 | 30.2 | 29.3 | 30.5 | 31.2 | 31.5 | 31.8 | 31.0 | 30.4 | 28.9 | 30.3 |
| 1983 | 29.3 | 29.6 | 30.2 | 30.4 | 30.6 | 31.4 | 32.0 | 31.5 | 31.5 | 31.2 | 30.7 | 30.8 | 30.7 |
| 1984 | 29.3 | 28.6 | 29.7 | 31.1 | 31.5 | 30.7 | 31.2 | 31.7 | 30.7 | 30.9 | 30.2 | 29.7 | 30.4 |
| 1985 | 29.2 | 29.0 | 29.1 | 29.5 | 30.2 | 31.2 | 31.5 | 31.3 | 30.7 | 29.9 | 30.1 | 29.4 | 30.1 |
| 1986 | 28.8 | 28.7 | 29.4 | 30.1 | 29.6 | 30.0 | 31.4 | 31.3 | 31.4 | 31.2 | 30.4 | 29.7 | 30.2 |
| 1987 | 29.2 | 29.1 | 29.7 | 29.9 | 29.9 | 30.9 | 31.3 | 30.4 | 31.9 | 31.2 | 31.1 | 29.5 | 30.6 |
| 1988 | 29.6 | 29.3 | 29.6 | 29.9 | 30.7 | 31.5 | 31.9 | 31.2 | 31.2 | 31.3 | 30.4 | 29.5 | 30.5 |
| 1989 | 29.8 | 29.6 | 29.9 | 29.6 | 29.9 | 30.9 | 31.4 | 32.1 | 32.0 | 31.5 | 31.1 | 30.7 | 30.4 |
| PROM. | 29.3 | 29.3 | 29.8 | 30.3 | 30.4 | 30.9 | 31.4 | 31.5 | 31.4 | 31.2 | 30.7 | 29.7 | 30.5 |

El signo " - " indica que no hay datos en esa fecha



0112 G.S.

OFICINA NACIONAL DE METEOROLOGIA
 DIVISION DE CLIMATOLOGIA - SECCION DE COMPUTOS

TEMPERATURA MINIMA MEDIA EN °C

511341401 SANTO DOMINGO

| AÑO | ENE | FEB | MAR | ABR | MAY | JUN | JUL | AGO | SEP | OCT | NOV | DIC | PRCH. |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 1961 | 19.5 | 19.7 | 19.8 | 20.9 | 22.0 | 22.0 | 22.3 | 22.7 | 22.1 | 22.1 | 20.1 | 20.1 | 21.1 |
| 1962 | 19.8 | 18.3 | 19.1 | 20.8 | 21.1 | 22.2 | 22.6 | 22.4 | 22.5 | 22.2 | 20.9 | 20.6 | 21.0 |
| 1963 | 19.3 | 19.7 | 20.0 | 20.9 | 21.4 | 22.9 | 22.7 | 22.1 | 22.9 | 22.2 | 21.2 | 20.9 | 21.5 |
| 1964 | 19.4 | 20.4 | 20.5 | 21.3 | 22.3 | 22.2 | 22.7 | 22.7 | 22.3 | 21.9 | 20.7 | 19.6 | 21.2 |
| 1965 | 19.1 | 18.9 | 20.1 | 19.3 | 21.0 | 22.0 | 22.1 | 21.7 | 21.9 | 22.0 | 20.9 | 20.6 | 20.7 |
| 1966 | 19.7 | 19.4 | 20.4 | 20.7 | 21.7 | 22.3 | 22.6 | 22.6 | 22.2 | 21.3 | 19.9 | 19.3 | 21.0 |
| 1967 | 19.1 | 19.1 | 18.8 | 19.7 | 21.6 | 22.4 | 22.5 | 22.2 | 22.2 | 21.8 | 21.3 | 19.5 | 20.8 |
| 1968 | 18.8 | 19.2 | 19.2 | 19.4 | 22.1 | 22.3 | 22.4 | 22.5 | 22.4 | 22.1 | 21.7 | 20.5 | 21.1 |
| 1969 | 19.9 | 19.2 | 21.2 | 22.1 | 22.1 | 22.1 | 22.9 | 22.5 | 22.7 | 22.7 | 21.5 | 20.2 | 21.6 |
| 1970 | 20.1 | 19.7 | 20.1 | 21.2 | 21.8 | 22.4 | 22.9 | 22.2 | 22.1 | 22.0 | 20.5 | 20.0 | 21.2 |
| 1971 | 19.4 | 19.3 | 19.9 | 20.9 | 22.2 | 22.7 | 22.4 | 22.5 | 22.5 | 21.9 | 20.9 | 20.2 | 21.2 |
| 1972 | 19.7 | 19.9 | 20.1 | 21.1 | 22.0 | 22.7 | 22.1 | 22.1 | 22.9 | 22.2 | 20.9 | 20.2 | 21.7 |
| 1973 | 20.4 | 20.1 | 21.1 | 21.2 | 22.9 | 23.4 | 23.5 | 23.2 | 23.3 | 23.0 | 21.1 | 19.5 | 21.9 |
| 1974 | 19.9 | 20.0 | 19.9 | 20.7 | 22.0 | 23.1 | 23.3 | 22.9 | 22.9 | 22.0 | 22.0 | 20.3 | 21.6 |
| 1975 | 19.5 | 19.4 | 20.3 | 21.4 | 22.2 | 22.1 | 22.9 | 22.0 | 22.4 | 22.7 | 21.5 | 19.1 | 21.4 |
| 1976 | 18.2 | 19.2 | 19.1 | 20.7 | 22.2 | 22.7 | 22.9 | 22.5 | 22.7 | 22.6 | 22.2 | 20.3 | 21.3 |
| 1977 | 19.7 | 20.3 | 20.7 | 21.2 | 22.4 | 23.2 | 22.8 | 22.6 | 22.6 | 22.5 | 22.3 | 21.6 | 21.6 |
| 1978 | 19.4 | 19.7 | 20.9 | 21.5 | 22.5 | 22.9 | 22.6 | 22.7 | 22.5 | 22.2 | 21.5 | 20.1 | 21.6 |
| 1979 | 19.5 | 19.9 | 19.9 | 21.7 | 22.4 | 23.6 | 23.8 | 23.3 | 23.3 | 23.5 | 22.1 | 20.6 | 22.0 |
| 1980 | 20.6 | 20.9 | 21.0 | 22.3 | 23.9 | 24.6 | 24.0 | 23.9 | 23.7 | 23.5 | 22.6 | 21.2 | 22.7 |
| 1981 | 20.7 | 20.4 | 21.7 | 21.4 | 22.9 | 23.1 | 23.4 | 22.9 | 23.2 | 22.9 | 22.1 | 21.1 | 22.1 |
| 1982 | 20.4 | 20.2 | 20.8 | 22.0 | 22.3 | 23.7 | 23.2 | 23.4 | 23.5 | 22.9 | 21.7 | 20.3 | 22.0 |
| 1983 | 21.2 | 20.4 | 21.9 | 21.9 | 22.9 | 24.3 | 23.4 | 22.6 | 23.9 | 22.9 | 22.2 | 20.7 | 22.3 |
| 1984 | 20.6 | 20.6 | 20.9 | 21.9 | 22.1 | 22.2 | 21.7 | 22.4 | 22.2 | 21.2 | 21.2 | 19.9 | 21.3 |
| 1985 | 19.5 | 19.9 | 20.4 | 21.0 | 22.6 | 23.0 | 23.4 | 23.0 | 23.0 | 21.7 | 21.3 | 20.5 | 21.7 |
| 1986 | 19.5 | 19.2 | 20.3 | 21.2 | 21.9 | 22.5 | 23.2 | 23.3 | 22.9 | 23.1 | 22.6 | 21.2 | 21.7 |
| 1987 | 19.9 | 20.2 | 21.1 | 22.9 | 22.1 | 22.5 | 24.2 | 22.9 | 22.7 | 22.9 | 22.7 | 22.2 | 22.6 |
| 1988 | 20.6 | 20.4 | 20.6 | 22.1 | 23.4 | 24.0 | 23.3 | 22.5 | 23.0 | 22.7 | 22.1 | 20.8 | 22.1 |
| 1989 | 20.4 | 19.7 | 19.9 | 20.8 | 22.0 | 22.8 | 23.6 | 23.6 | 23.2 | 22.8 | 22.2 | 21.2 | 21.8 |
| PRCH. | 19.7 | 19.8 | 20.3 | 21.2 | 22.3 | 23.6 | 22.9 | 22.9 | 22.9 | 22.4 | 21.5 | 20.4 | 21.6 |

EL signo " -- " indica que no hay datos en esa fecha



OFICINA NACIONAL DE METEOROLOGIA
DIVISION DE CLIMATOLOGIA - SECCION DE COMPUTOS

HUMEDAD RELATIVA MEDIA MENSUAL EN %

SANTO DOMINGO

| AÑO | ENE | FEB | MAR | ABR | MAY | JUN | JUL | AGO | SEP | OCT | NOV | DIC | PRGM. |
|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 1961 | 84.6 | 82.0 | 83.4 | 82.6 | 83.9 | 85.5 | 85.9 | 86.5 | 84.7 | 87.8 | 85.8 | 87.4 | 84.9 |
| 1962 | 85.6 | 81.1 | 81.0 | 83.5 | 83.7 | 87.7 | 85.4 | 85.9 | 85.1 | 85.2 | 83.7 | 86.4 | 84.6 |
| 1963 | 81.7 | 83.5 | 79.1 | 81.5 | 81.3 | 88.9 | 88.2 | 87.9 | 88.5 | 86.4 | 88.1 | 88.7 | 84.3 |
| 1964 | 88.6 | 87.1 | 83.2 | 86.7 | 84.1 | 89.2 | 85.8 | 84.9 | 84.6 | 86.0 | 83.8 | 88.5 | 85.3 |
| 1965 | 77.7 | 77.0 | 79.2 | 73.3 | 86.9 | -- | 88.5 | 89.8 | 93.0 | 88.9 | 88.2 | 87.7 | --- |
| 1966 | 85.5 | 79.1 | 79.4 | 79.6 | 88.1 | 85.4 | 84.1 | 84.1 | 88.9 | 88.4 | 84.3 | 85.4 | 84.3 |
| 1967 | 93.6 | 82.8 | 76.4 | 75.4 | 78.1 | 82.8 | 83.2 | 85.4 | 85.8 | 84.3 | 88.7 | 78.9 | 81.5 |
| 1968 | 78.2 | 81.1 | 74.5 | 71.6 | 82.0 | 85.1 | 86.2 | 86.0 | 86.5 | 85.4 | 85.2 | 84.7 | 82.2 |
| 1969 | 87.7 | 75.8 | 77.3 | 88.3 | 84.7 | 87.4 | 85.3 | 85.4 | 88.7 | 87.9 | 87.8 | 84.9 | 84.0 |
| 1970 | 86.2 | 83.7 | 79.2 | 75.9 | 82.2 | 83.7 | 85.9 | 88.4 | 88.4 | 88.8 | 84.0 | 87.8 | 84.9 |
| 1971 | 82.1 | 84.7 | 81.7 | 88.4 | 83.8 | 85.3 | 85.8 | 87.6 | 85.5 | 89.4 | 86.8 | 84.1 | 84.7 |
| 1972 | 84.8 | 83.9 | 82.5 | 88.4 | 88.8 | 87.5 | 88.8 | 86.3 | 88.6 | 88.8 | 87.6 | 87.8 | 85.2 |
| 1973 | 85.8 | 83.8 | 82.4 | 77.5 | 83.3 | 84.8 | 84.4 | 86.5 | 87.4 | 89.7 | 84.7 | 84.6 | 84.4 |
| 1974 | 85.8 | 89.4 | 87.3 | 85.7 | 86.7 | 84.3 | 87.4 | 87.6 | 90.6 | 83.3 | 88.9 | 86.4 | 87.3 |
| 1975 | 84.8 | 81.2 | 83.8 | 82.8 | 79.9 | 78.9 | 79.8 | 82.7 | 84.4 | 84.4 | 85.6 | 84.5 | 83.3 |
| 1976 | 81.6 | 82.5 | 82.0 | 79.7 | 89.2 | 82.1 | 82.9 | 83.2 | 85.3 | 85.9 | 84.5 | 82.2 | 82.6 |
| 1977 | 81.6 | 83.5 | 76.1 | 79.7 | 85.8 | 81.4 | 83.5 | 87.4 | 86.8 | 88.9 | 86.5 | 86.9 | 83.5 |
| 1978 | 81.7 | 78.8 | 79.8 | 81.8 | 87.3 | 81.8 | 81.6 | 83.9 | 83.8 | 86.8 | 86.8 | 85.8 | 83.6 |
| 1979 | 84.8 | 79.6 | 79.9 | 88.3 | 87.4 | 88.8 | 88.2 | 85.4 | 87.8 | 85.8 | 84.6 | 81.4 | 84.3 |
| 1980 | 83.6 | 82.6 | 88.2 | 88.8 | 83.7 | 83.8 | 83.5 | 84.2 | 85.3 | 87.6 | 82.7 | 83.4 | 83.4 |
| 1981 | 81.8 | 83.5 | 76.8 | 77.8 | 85.1 | 87.3 | 87.3 | 84.3 | 82.1 | 81.8 | 79.8 | 81.4 | 81.4 |
| 1982 | 81.3 | 78.4 | 75.7 | 75.4 | 82.6 | 82.1 | 82.4 | 82.3 | 81.4 | 81.3 | 82.4 | 79.8 | 83.4 |
| 1983 | -- | 76.1 | 78.8 | 76.4 | 83.8 | 84.3 | 88.4 | 83.4 | 82.1 | 82.8 | 81.2 | 82.4 | --- |
| 1984 | 81.7 | 83.2 | 77.8 | 77.7 | 88.3 | 81.9 | 81.1 | 83.7 | 83.9 | 83.4 | 79.1 | 76.8 | 88.4 |
| 1985 | 77.9 | 77.8 | 78.4 | 75.4 | 79.5 | 78.7 | 78.5 | 81.5 | 84.1 | 85.7 | 88.3 | 88.8 | 79.6 |
| 1986 | 80.3 | 76.9 | 79.3 | 79.8 | 83.9 | 83.3 | 81.3 | 83.2 | 82.5 | 83.2 | 85.4 | 81.3 | 81.6 |
| 1987 | 82.1 | 78.1 | 78.8 | 81.7 | 88.8 | 83.8 | 83.8 | 83.3 | 84.4 | 82.1 | 84.8 | 81.3 | 81.3 |
| 1988 | 78.2 | 75.7 | 73.4 | 77.7 | 75.6 | 78.6 | 79.8 | 81.4 | 88.5 | 88.3 | 81.8 | 79.2 | 78.7 |
| 1989 | 84.4 | 78.1 | 77.2 | 71.8 | 77.3 | 81.8 | 81.8 | 88.6 | 88.7 | 81.8 | 81.8 | 79.6 | 79.6 |
| 1990 | 82.7 | 83.9 | 79.4 | 79.8 | 83.8 | 83.8 | 84.8 | 84.8 | 82.4 | 85.8 | 84.3 | 83.6 | 83.1 |

El signo "--" indica que no hay datos en esa fecha



10112 G.S.

OFICINA NACIONAL DE METEOROLOGIA
 DIVISION DE CLIMATOLOGIA - SECCION DE COMPUTOS

VELOCIDAD MEDIA DEL VIENTO EN KM/H

Estación: SANTO DOMINGO

| AÑO | ENE | FEB | MAR | ABR | MAY | JUN | JUL | AGO | SEP | OCT | NOV | DIC | PROM. |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 1961 | 10.9 | 12.2 | 11.3 | 11.5 | 11.1 | 10.2 | 10.8 | 10.4 | 9.7 | 10.2 | 11.9 | 10.6 | 10.9 |
| 1962 | 10.9 | 11.5 | 11.6 | 10.8 | 10.4 | 10.0 | 10.3 | 10.7 | 10.6 | 9.8 | 11.2 | 11.6 | 10.8 |
| 1963 | 12.0 | 11.1 | 13.1 | 13.8 | 11.6 | 10.3 | 11.2 | 9.7 | 10.5 | 10.9 | 13.1 | 9.2 | 11.1 |
| 1964 | 10.5 | 10.5 | 12.3 | 11.5 | 11.5 | 10.2 | 10.9 | 10.5 | 9.0 | 7.7 | 9.6 | 11.6 | 10.5 |
| 1965 | 11.6 | 12.5 | 11.1 | 11.5 | 11.7 | 9.5 | 9.9 | 10.2 | 9.9 | 7.7 | 9.3 | 10.4 | 10.4 |
| 1966 | 13.2 | 13.1 | 13.0 | 12.6 | 10.5 | 10.7 | 10.2 | 12.7 | 11.6 | 9.5 | 12.0 | 13.3 | 11.7 |
| 1967 | 11.5 | 12.5 | 13.1 | 13.2 | 11.9 | 10.6 | 12.1 | 10.6 | 10.5 | 10.1 | 11.7 | 13.0 | 11.7 |
| 1968 | 14.2 | 12.3 | 13.1 | 13.6 | 11.1 | 10.9 | 10.8 | 11.2 | 9.6 | 9.6 | 11.2 | 13.1 | 11.7 |
| 1969 | 12.5 | 12.3 | 13.1 | 12.9 | 10.7 | 9.4 | 10.3 | 9.9 | 9.6 | 9.6 | 10.5 | 10.5 | 10.6 |
| 1970 | 10.9 | 12.4 | 12.0 | 11.5 | 10.8 | 8.9 | 10.2 | 10.2 | 9.3 | 9.9 | 11.0 | 10.6 | 10.5 |
| 1971 | 10.6 | 10.6 | 10.2 | 10.6 | 9.6 | 8.5 | 9.5 | 8.9 | 8.5 | 7.9 | 8.4 | 11.0 | 9.5 |
| 1972 | 10.4 | 10.3 | 9.8 | 10.8 | 9.4 | 8.1 | 10.1 | 9.4 | 8.4 | 8.1 | 9.6 | 10.5 | 9.7 |
| 1973 | 9.5 | 10.7 | 9.9 | 11.2 | 8.6 | 9.1 | 8.4 | 8.9 | 8.3 | 9.9 | 12.0 | 12.9 | 10.0 |
| 1974 | 13.7 | 11.6 | 11.1 | 12.8 | 10.9 | 10.6 | 9.5 | 10.6 | 8.3 | 10.4 | 11.3 | 12.3 | 11.1 |
| 1975 | 12.2 | 11.9 | 11.7 | 11.7 | 10.2 | 10.3 | 10.3 | 9.4 | 8.4 | 8.1 | 9.9 | 10.1 | 10.0 |
| 1975 | 9.5 | -- | 8.1 | 9.1 | 10.0 | 11.3 | 9.6 | 9.1 | 8.4 | 10.2 | 9.7 | 9.0 | -- |
| 1977 | -- | -- | -- | 12.2 | -- | -- | 10.5 | 10.4 | 9.3 | 8.9 | 10.3 | 9.9 | -- |
| 1978 | 10.3 | 10.9 | 12.9 | 12.9 | 10.6 | 9.8 | 11.2 | 11.3 | 9.8 | 8.4 | 11.1 | 9.1 | 10.9 |
| 1979 | 11.7 | 11.6 | 13.0 | 12.1 | 9.8 | 9.7 | 10.8 | 11.5 | 11.7 | 9.8 | 11.0 | 12.1 | 11.2 |
| 1980 | 11.5 | 12.3 | 12.0 | 11.3 | 9.7 | 10.5 | 10.1 | 10.2 | 9.7 | 7.7 | 9.0 | 10.6 | 10.4 |
| 1981 | 11.6 | 8.6 | 10.4 | 11.7 | 10.0 | 7.3 | 8.5 | 9.3 | 8.4 | 9.1 | 8.6 | 10.1 | 9.4 |
| 1982 | 9.9 | 10.8 | 8.9 | 9.1 | 9.0 | 9.2 | 9.8 | 8.8 | 8.0 | 7.4 | 9.2 | 9.0 | 8.8 |
| 1983 | 8.3 | 6.2 | 7.3 | 7.9 | 7.5 | 7.7 | 7.4 | 6.9 | 6.5 | 6.4 | 6.8 | 7.1 | 7.1 |
| 1984 | 7.1 | 6.8 | 7.4 | 7.3 | 7.2 | 7.3 | 7.2 | 6.6 | 6.8 | 6.9 | 8.5 | 8.7 | 7.3 |
| 1985 | 7.3 | 8.0 | 7.7 | 8.2 | 8.1 | 8.4 | 8.4 | 7.8 | 7.3 | 6.7 | 8.9 | 7.5 | 7.9 |
| 1986 | 7.4 | 8.0 | 8.7 | 8.7 | 8.5 | 8.2 | 8.1 | 9.0 | 7.9 | 7.7 | 7.9 | 7.9 | 8.2 |
| 1987 | 8.1 | 8.3 | 7.8 | 7.4 | 7.8 | 8.0 | 6.1 | 5.6 | 7.1 | 7.2 | 7.1 | 8.3 | 7.3 |
| 1988 | 5.7 | 7.2 | 9.8 | 8.6 | 8.7 | 11.1 | 8.9 | 7.4 | 6.6 | 6.8 | 6.6 | 7.4 | 7.8 |
| 1989 | 8.1 | 7.1 | 8.1 | 7.5 | 6.9 | 6.7 | 6.9 | 4.0 | 5.6 | 6.1 | 7.1 | 6.1 | 6.7 |
| PROM. | 10.4 | 10.6 | 10.6 | 10.7 | 9.6 | 9.2 | 9.5 | 9.4 | 8.8 | 8.3 | 9.6 | 10.2 | 9.8 |

El signo " -- " indica que no hay datos en esa fecha



OFICINA NACIONAL DE METEOROLOGIA
 DIVISION DE CLIMATOLOGIA - SECCION DE COMPUTOS

TOTALES MENSUALES DE LLUVIA EN MILIMETROS

Estación: ALTO BANDERA

| AÑO | ENE | FEB | MAR | ABR | MAY | JUN | JUL | AGO | SEP | OCT | NOV | DIC | TOTAL |
|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1964 | | | 1.4 | | | | | | 84.6 | 135.8 | 137.3 | 121.4 | |
| 1965 | 39.0 | 65.2 | 2.0 | | | | | | | | | | |
| 1966 | 44.1 | 22.9 | 71.8 | | | | | | | | | | |
| 1967 | | | | | | 150.6 | 81.0 | 63.0 | 100.5 | 152.5 | 79.1 | | |
| 1968 | 99.6 | 54.5 | 29.5 | 6.6 | 172.6 | 98.3 | 124.9 | 173.6 | 108.4 | 19.3 | 288.4 | | |
| 1969 | 48.0 | 5.0 | 57.5 | 132.5 | 226.8 | | 90.0 | 100.0 | 139.8 | 256.1 | 244.9 | 96.6 | |
| 1970 | | | | | | | | | | | | | |
| 1971 | | | | | | | | | | | | | |
| 1972 | 61.0 | 40.7 | 158.9 | 88.1 | | | 146.4 | 117.4 | 195.0 | 144.2 | | 195.4 | |
| 1973 | 25.5 | 55.3 | | 30.2 | 48.3 | 70.0 | 75.0 | 118.2 | 79.9 | 221.9 | 99.4 | 182.0 | |
| 1974 | 154.4 | 73.8 | 81.0 | 91.0 | 69.3 | 83.8 | | | | | | | |
| 1975 | | | | | | | | | | | | | |
| 1976 | 82.2 | 95.2 | 17.0 | 104.7 | 36.9 | 39.7 | 45.1 | 69.3 | 104.7 | 99.4 | 47.4 | 85.8 | 807.4 |
| 1977 | | | | | | | | | | | | | |
| 1978 | | | | | | | | | | | | | |
| 1979 | | | | | | | | | | | | | |
| 1980 | | | | | | | | | | | | | |
| 1981 | 65.5 | 51.7 | 81.1 | 72.1 | 132.1 | 85.1 | 82.3 | 134.0 | 124.7 | 144.3 | 147.3 | 120.1 | 1170.4 |

El signo "—" indica que no hay datos en esa fecha



1012 C.R.

PRINTED IN U.S.A.

OFICINA NACIONAL DE METEOROLOGIA
 DIVISION DE CLIMATOLOGIA - SECCION DE COMPUTOS

LLUVIA MAYOR CAIDA EN 24 HORAS EN MILIMETROS
 Estación: ALTO BANDERA

| | AGO | ENE | FEB | MAR | ABR | MAY | JUN | JUL | AGO | SEP | OCT | NOV | DIC | MAXIMO |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| 1954 | -- | -- | -- | 3.7 | -- | -- | -- | -- | -- | 15.1 | 44.0 | 18.0 | 34.4 | 44.0 |
| 1955 | 14.0 | 42.2 | 2.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 42.2 |
| 1956 | 9.7 | 4.8 | 11.8 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 11.8 |
| 1967 | -- | -- | -- | -- | -- | -- | 32.0 | 18.3 | 16.2 | 86.4 | 33.0 | 13.3 | -- | 86.4 |
| 1968 | 15.2 | 20.0 | 8.7 | 2.5 | 25.3 | 70.0 | 23.0 | 34.0 | 32.0 | 14.0 | 42.0 | -- | -- | 49.0 |
| 1969 | 30.0 | 6.0 | 25.4 | 35.0 | 47.0 | -- | -- | 43.0 | 28.5 | 35.2 | 27.5 | 73.8 | 48.4 | 73.8 |
| 1970 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1971 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1972 | 15.2 | 19.2 | 40.1 | 19.2 | -- | -- | -- | 18.6 | 25.0 | 40.0 | 17.6 | -- | 30.0 | 40.1 |
| 1973 | 7.2 | 14.2 | -- | 11.4 | 10.0 | 10.0 | 19.9 | 38.0 | 23.0 | 40.2 | 30.0 | 9.8 | -- | 40.2 |
| 1974 | 15.0 | 13.0 | 10.0 | 15.0 | 15.0 | 15.2 | -- | -- | -- | -- | -- | -- | -- | 15.2 |
| 1975 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1976 | 9.0 | 14.4 | 14.5 | 10.5 | 6.2 | 7.0 | 8.0 | 10.0 | 15.0 | 43.0 | 10.0 | 45.0 | -- | 45.0 |
| 1977 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1978 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1979 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |



10112 G.B.

OFICINA NACIONAL DE METEOROLOGIA
 DIVISION DE CLIMATOLOGIA - SECCION DE COMPUTOS

TOTALES MENSUALES DE DIAS DE LLUBIA

Estación: ALTO BANDERA

| AÑO | ENE | FEB | MAR | ABR | MAY | JUN | JUL | AGO | SEP | OCT | NOV | DIC | TOTAL |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1964 | --- | --- | 3 | --- | --- | --- | --- | --- | 17 | 14 | 18 | 16 | --- |
| 1965 | 7 | 4 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1966 | 13 | 10 | 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1967 | --- | --- | --- | --- | --- | 17 | 21 | 15 | 11 | 12 | 17 | --- | --- |
| 1968 | 14 | 4 | 3 | 3 | 17 | 10 | 15 | 10 | 10 | 2 | 15 | --- | --- |
| 1969 | 5 | 1 | 6 | 13 | 10 | --- | 10 | 8 | 14 | 17 | 17 | 9 | --- |
| 1970 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1971 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1972 | 11 | 5 | 16 | 8 | --- | --- | 19 | 13 | 17 | 19 | --- | 18 | --- |
| 1973 | 8 | 10 | --- | 5 | 10 | 16 | 9 | 15 | 9 | 20 | 11 | 16 | --- |
| 1974 | 21 | 10 | 11 | 12 | 9 | 13 | --- | --- | --- | --- | --- | --- | --- |
| 1975 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1976 | 17 | 17 | 6 | 17 | 8 | 11 | 10 | 17 | 21 | 9 | 9 | 9 | 141 |
| 1977 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1978 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1979 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1980 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TOTAL | 115 | 76 | 70 | 30 | 136 | 124 | 140 | 127 | 121 | 176 | 140 | 174 | 1413 |

EL signo " -- " indica que no hay datos en esa fecha



10112 c.d.

PRINTED IN U.S.A.

Apéndice-7 Datos de sondeo



NHK INTEGRATED TECHNOLOGY INC.

GEOTECHNICAL INVESTIGATION

TRANSMISSION TOWER

AT ALTO BANDERA.

CONSTANZA, DOMINICAN REPUBLIC

REF. 116/91

GEOCONSULT, S. A.

SANTO DOMINGO, D.N.

APRIL, 1991.-



Santo Domingo, D.N.
April, 23, 1991.-

Sirs:
NHK Integrated Technology Inc.
Santo Domingo.

Att: Yoshiyuki Matsuda.
Ref. Alto Bandera Tower.
Geotechnical Investigation

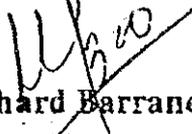
Dear Sirs:

We have pleasure in submitting herewith three (3) copies of the report "Geotechnical Investigation at Alto Bandera Tower".

Based upon the data received from borings and the results of laboratory tests, we recommend use isolated shallow foundation for the tower legs.

We trust that this report meets your requirements. If there are any questions or remarks, please let us know.

Sincerely Yours,


Ing. Richard Barranco
President.-

NHK INTEGRATED TECHNOLOGY INC.

GEO TECHNICAL INVESTIGATION

TRANSMISSION TOWER

AT ALTO BANDERA.

CONSTANZA, DOMINICAN REPUBLIC

REF. 116/91

GEOCONSULT, S. A.

SANTO DOMINGO, D.N.

APRIL, 1991.-



CONTENTS

- 1.- GENERAL.
- 2.- SCOPE OF WORK.
- 3.- GEOLOGY.
- 4.- STRATIGRAPHY.
- 5.- CONCLUSIONS AND RECOMMENDATIONS.
- 6.- APPENDIX.



1.- GENERAL.-

The present report covers the memories relative to a geotechnical investigation carried out in the site where will be constructed a transmission tower, in Alto Bandera, Constanza, Dominican Republic.

The work have been done to requirement of, NHK Integrated Technology Inc, of Japan.

Structure.-

The tower, is a steel braced bars, self supported structure of 90 meters height, with 60 tons of weight and a square base of 14 meters width.

The tower will be supported for four legs, which rest on isolated shallow reinforced concrete foundations.

Site.-

Alto Bandera is one of the highest point in the Dominican Republic, with an elevation of 2842 meters above sea level.



The peak has an approximated area of 10,000 square meters. It is, the most important communication center in the country, there are several transmission towers operated for military, government and privates agencies.

The new tower will improve the transmission quality of government T.V. channel (Radio Televisión Dominicana).

The peak is narrow and steep, and there is not any vegetation.

2.- SCOPE OF WORK.-

The purpose of this investigation is to provide the foundation designer with information on site engineering properties, including strata profile underlying the tower site, its geophysical characteristics and the allowable bearing capacity. This information will permit the design of stable and safe foundation structure.

The investigation included the different phases of, field, laboratory and office work.



The client chose two sites for investigation, identified as, "Site A" and "Site B". At each site we carried out a boring, following the procedure established by the designation ASTM D-2113, "Standard Method for Diamond Core Drilling for Site Investigation".

The core drilling began using a NWL double tube swivel- core barrel. After drilling 0.75 meters, the core barrel was removed from the hole, and took out the core, which was placed in the core box, marking the depths of the top and bottom of it.

When soft materials were encountered, we applied the test established by the designation ASTM D-1586; "Standard Method for Penetration Test and Split Barrel Sampling of Soils", in which a split barrel sampler of 50.8 mm. outside diameter, 34.9 mm. inside diameter, and 685.8 mm. length is driven in to the soil with blows from a 63.5 kg. hammer, falling 0.76 meters until either 0.45 meters have been penetrated or a N value of 50 is reached.

In this test, we record the number of blows required to effect each 0.15 meter of penetration or fraction thereof. The first 0.15 meter is considered to be a seating drive. The number of blows required for the second and third 0.15 m. of penetration added, is termed the penetration resistance (N). In all cases we reached the 50 blows before 0.15 m. was penetrated.



All information referent to both procedures and their results are detailed in the boring logs.

The field investigation was carried out on april 13 and 14, using an Acker Ace Model W Diamond Core/Soil Sampling Drill.

The first step in the laboratory phase, is the visual identification of samples. Then the selection of samples for test.

Since the cores length was too short, due to quality of rock, was only possible to make one compressive test. It was carried out following the procedure established in the designation ASTM D-2938, "Standard Test Method for Unconfined Compressive Strength of Intact Rock Core Specimens".

The office phase included, drawing of strata profile, compute of allowable bearing capacity and settlement, as same as, writing report which included, field and laboratory test procedures, data record, and the final recommendations about the type of foundation to use.



3.- GEOLOGY.-

The classification of the cores recovered in the borings, shows that the surface layer is formed by loose clastic sediments associated with calcareous cemented clastic sediments.

The loose clastic sediments are formed for fine to coarse gravels, of angular to subangular shape, coming from volcanic mafic rocks that crop out in that region, which belong to the cretaceous "Tiro Formation".

Within these gravels, we found grains of andesite, basalt, diorite and, seldom, limestone, been the last one, which helped to classify the horizons like sedimentary origin.

Clay, silt and some sand may be found in the recovered cores.

The consolidated clastic sediments may be classify like fine to medium conglomerate, of dark gray color, and formed for mafic subangular igneous particles coming from erosion and transportation of the rock cropping out in the area.

The conglomerates are very well cemented and can be found in both borings, even so the best definable



horizon is which to appear at 5.0 meters depth in the boring No. 1, and 4 meters in the boring No. 2.

In both borings there is a 4.0 meter thickness layer of subangular to subrounded loose gravels, from igneous origin in 98%, since the grains are from andesite, basalt, and diorite; staying the remaining 2%, limited to cream limestone fragments, both clastic and chemical origin.

In the boring No. 2, there is another conglomerate horizon within 6.50 and 7.25 meters depth, which does not appear in the boring No.1, due to it ended before reaching its top.

4.- STRATIGRAPHY.-

Site A:

0.0 - 1.00. Surface thin layer of dark gray sedimentary

conglomerate, constituted for cemented medium to fine gravel grains and sand, with subrounded to subangular shape from igneous mafic rocks, like diorite, andesite, basalt and rarely limestone grains.

The cementing agent is weaker than the grains, therefore the core is broken throughout the contact surface between the grains and the matrix. This brings that recovery percentage is low, about 30%, and the RQD (Rock Quality Designation) value is 0%.

1.00-5.00.- Coarse to fine gray gravel, with subrounded to subangular shape grains. Its geological origin is same as conglomerate grains, from igneous mafic rocks, like basalt, andesite and diorite.

The Standard Penetration Test in the gravel, shows an average value of 50 blows for only 3 cms. penetrated; which evidence a dense natural condition.

The geotechnical characteristics of the gravel are the following:

- Unit weight = 2.0 tc/m^3
- Internal friction angle = 41° .

5.00 -6.00.- Another conglomerate layer like the upper one, but with lightly finer grains.



6.00-7.00.- Medium to fine gravel with similar characteristics like the above gravel deposit, but with sand and gray silt.

Site B:

0.0-4.00.- Coarse to fine gravel with subrounded to subangular shape grains, gray color; trace of sand and yellow clay (Drilling Water Color was Yellow). The gravel grains are broken fragments of igneous mafic rocks, like diorite, basalt and andesite.

The Standard Penetration Test shows an average value of 50 blows for only 3 cms. penetrated, which evidence a dense condition. Its geotechnical characteristics are:
Unit Weight = 2.0 t/m^3 .
Internal Friction Angle = 41° .

4.00 -5.50.- Fine sedimentary conglomerate of dark gray color, constituted for cemented fine subrounded to subangular shape gravel grains and sand. Both of igneous mafic rocks origin, like andesite, diorite and basalt.



The cementing agent is weaker than the grains, therefore the core is broken throughout the surface contact between the grains and the matrix during the drilling operation. By that reason the core recovery percentage is low, about 30%, and the RQD value is 0, except from 4.50 m to 5.50 m where we got a value of RQD=10%. This core sample was tested to determine the unconfined compressive strength, showing an unit weight of 2.70 to/m³ and a unconfined compressive strength (q_u) value of 335 kg/cm².

5.50 -6.50.-Coarse to fine gravel with subrounded to

subangular shape grains, gray color due to its geologic origin, ineous mafic rocks, like diorite, basalt and andesite. In function of N value (50/3), the gravel has a dense natural condition.

6.50 -7.50.-Fine sedimentary conglomerate like the

upper layer.

7.50-8.00.-Igneous fragments mainly of volcanic

origin, gray color; with trace of elastic limestone fragments.

Neither BH No.1 nor BH No.2 there were loose in the drilling water. None of borings reached the ground water level.

5.-CONCLUSIONS/RECOMMENDATIONS.

In function of the strata profile underlying the Alto Bandera place, the foundation supporting soil will be the gravel deposit; it is in dense natural condition, which for an adequate foundation depth ensure the requirements of allowable bearing capacity, tolerable settlement, and safety against failure.

For gravel characteristics of, unit weight equal to 2.0 t/m^3 , and internal friction angle equal to 41° ; square footing width (B) equal to 2.00 m., and foundation

depth equal to 2.00 m., the allowable bearing capacity is $q_a = 10.0 \text{ kg/cm}^2$ (100 to/m²).

Normally it is usual in the country, an allowable bearing capacity of 4.0 kg/cm^2 , for that type of soil. For this bearing capacity value, the maximum total settlement will be equal to 0.64 cms.

The allowable bearing capacity against uplift or tension forces, using the previous soil and footing characteristics, is equal to 37.0 tons. An increment, in the foundation depth and footing dimensions will increase this value.

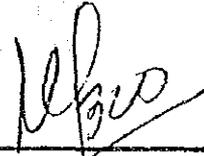
The final recommendations for the design of a good, stable and safe foundation, are the following:

- 1.- Use isolated shallow foundation for each tower leg.
- 2.- Use a minimum foundation depth equal to 2.00 meters.
3. Design the foundations for a maximum allowable bearing capacity equal to 4.0 kg/cm^2 (40 to/m²).
- 4.- The real foundation depth and footing dimensions to use, will be function of the maximum bearing capacity required against uplift or tension force. For a foundation depth equal to 2.00 m. and 2.0 x 2.0

square footing, the uplift allowable bearing capacity is equal to 37 tons.

5.- Place at foundation level a lean concrete seat layer of 5 cms. thickness, before pouring the structural concrete.

By GEOCONSULT, S.A.



Ing. Richard Barranco
President.-

SANTO DOMINGO, D.N.
Dominican Republic,
April, 19, 1991.-

6 APPENDIX

6.1. ALTO BANDERA PLACE.

6.2. BORING LOGS.



REPORTE DE SONDEO

Hoja 1 de 1
 Fecha 04/17/91
 Capit. 116

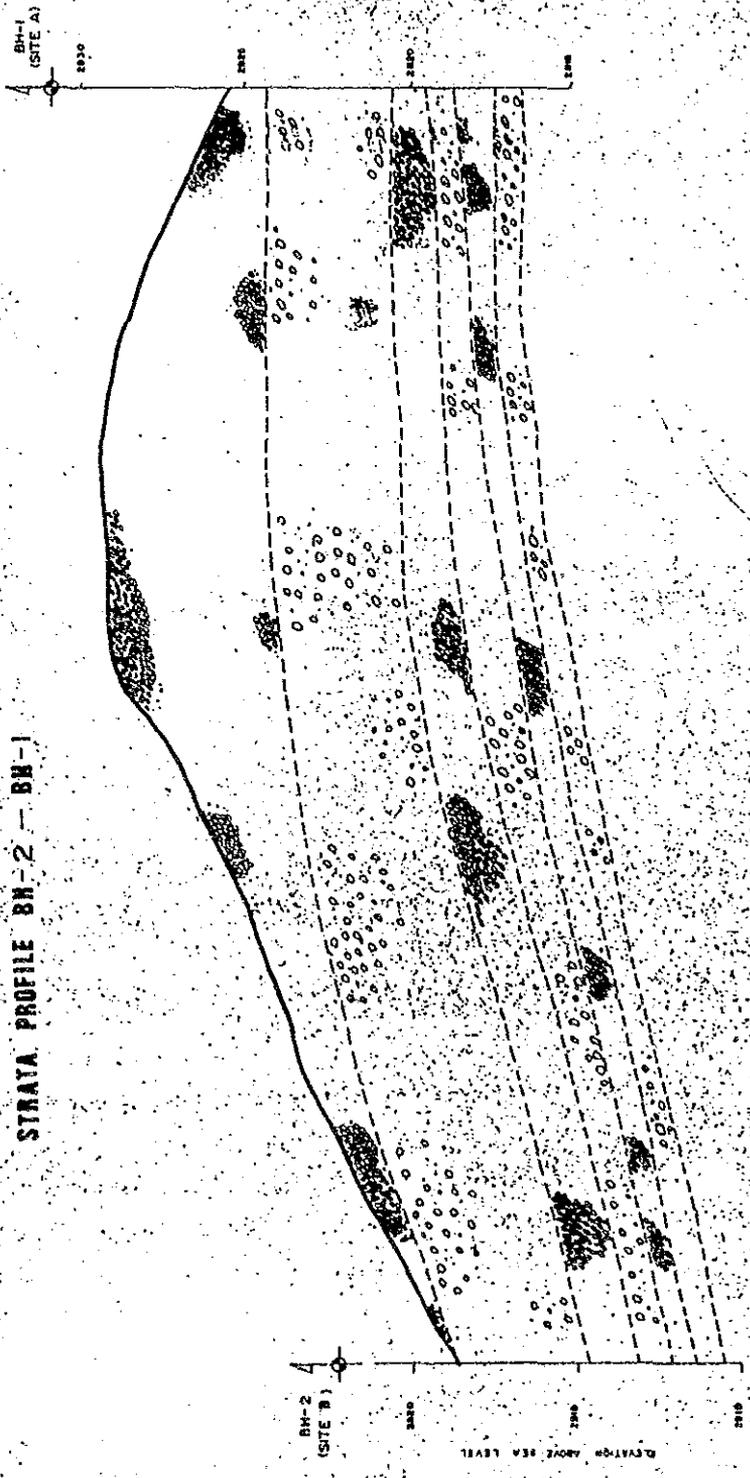
PROYECTO ALTO BANDERA TOWER

Sondeo No. BH-2 Angulo Horizontal 90° Cota superficial 2818.65
 Localizacion SITE B Fecha Inicio 04/13/91 Nivel de agua NO
 Coordenadas N _____ Fecha termino 04/13/91 Operador B. MADE
 E _____ Camisa Ø NW Inspector R. B.
 Toma muestra Ø NWL Muestra _____

| Camisa Golpes | N | MN ² | R | Prof. | LL | IP | W% | Perfil | DESCRIPCION | | | | | | | | | | | |
|---|------|-----------------|---|-------|------|----|----|--------|--|----|----|----|----|---|----|----|----|-----|--|--|
| | | | | | | | | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | | |
| | | | | 10 | | | | 0.0 | Coarse to fine gravel from inneous origin, trace of sand and clay. | | | | | | | | | | | |
| | | | | 23 | 1.0 | | | 0.0 | | | | | | | | | | | | |
| | 50/0 | | | 21 | 2.0 | | | 0.0 | Same. | | | | | | | | | | | |
| | 50/3 | | | 36 | | | | 0.0 | Same. | | | | | | | | | | | |
| | 50/5 | | | 23 | 3.0 | | | 0.0 | Same. | | | | | | | | | | | |
| | 50/3 | | | 33 | 4.0 | | | 0.0 | $\gamma = 2.7 \text{ to/m}^3$ fine conglomerate with. $q_u = 335 \text{ kg/cm}^2$ mafic igneous particles and scarce limestone particles. | | | | | | | | | | | |
| | | | | 32 | 5.0 | | | 0.0 | | | | | | | | | | | | |
| | | | | 22 | 6.0 | | | 0.0 | Coarse to fine gravel. | | | | | | | | | | | |
| | 50/0 | | | 24 | 7.0 | | | 0.0 | Fine conglomerate, like above. | | | | | | | | | | | |
| | | | | 32 | 8.00 | | | 0.0 | Igneous fragments, basicly volcanic; trace of clastic limestone fragments. | | | | | | | | | | | |
| | | | | | | | | | _____ Total recovery in % Maximum boring depht considered: 8.0 m. - - - : RQD (%). γ = Unit weight q_u = Unconfined compressive strength. | | | | | | | | | | | |
| LL = LIMITE LIQUIDO IP = INDICE PLASTICO W% = CONTENIDO HUMEDAD N = NUMERO DE GOLPES/PIE γ = PESO UNITARIO MN ² = MUESTRA NUMERO | | | | | | | | | qu = COMPRESION SIMPLE V = VELOCIDAD PENETRACION R = RECUPERACION EN % <input type="checkbox"/> = MUESTRA INALTERADA <input checked="" type="checkbox"/> = MUESTRA PENETRACION | | | | | <input checked="" type="checkbox"/> = MUESTRA A ROTACION EL = EXPANSION LIBRE ESC: 1: 100 | | | | | | |

6.3. STRATA PROFILE.

STRATA PROFILE BH-2 - BH-1



LEYENDA



FINE DARKGRAY CONGLOMERATE, WITH ANGULAR MPFC PARTICLES AND SCARCE LIMESTONE PARTICLES



COARSE TO FINE GRAVEL, WITH SUBROUNDED TO SUBANGULAR SHAPE GRAINS, FROM QUARTZ BASALTIC AND ANDESITE ORIGIN

SCALE: HORIZ. 1:200
VERT. 1:100



BORING HOLE

NHK INTEGRATED TECHNOLOGY INC.

GEOTECHNICAL INVESTIGATION
ALTO BANDERA TOWER

STRATA PROFILE

GECONSULT, S. A.

| | | |
|----------------|-------------|----------------|
| DATE: 11/11/11 | REV. N.º: 1 | DATE: 04/11/11 |
|----------------|-------------|----------------|

BH-2
(SITE B)

BH-1
(SITE A)

ELEVATION ABOVE SEA LEVEL

Apéndice-8 Lista de datos recolectados

1. INTEGRANTES DE LA JUNTA MONETARIA (AL 30 DE AGOSTO 1990)
(BANCO CENTRAL DE LA REPUBLICA DOMINICANA)
2. INVESTORS HANDBOOK AND BUSINESS GUIDE
(AMERICAN CHAMBER OF COMMERCE OF DOMINICAN REPUBLIC)
3. PERSPECTIVAS DE LA ECONOMICA DOMINICANA PARA EL PERIODO
1989~1992 PLAN NACIONAL DE DESARROLLO (1987~1992)
(OFICINA NACIONAL DE PLANIFICACION, SECRETARIADO TECNICO DE LA
PRESIDENCIA)
4. LINEAMIENTOS GENERALES PARA LA FORMACION DEL PLAN NACIONAL DE
DESARROLLO 1991~2000
(OFICINA NACIONAL DE PLANIFICACION, SECRETARIADO TECNICO DE LA
PRESIDENCIA)
5. REPUBLICA DOMINICANA EN CIFLAS 1988 VOL XV
(OFICINA NACIONAL DE ESTADISTICA, SECRETARIADO TECNICO DE LA
PRESIDENCIA)
6. LA COMUNICACION SOCIAL EN LAS LEYES DOMINICANAS
(COLECCION TEXTOS UNIVERSITARIOS DE COMUNICACION SOCIAL)
7. MEDIOS Y NORMAS DE COMUNICACION EN LA REPUBLICA DOMINICANA
(ASOCIACION DOMINICANA DE RADIO DIFUSORAS INC.)
8. POLITICAS EDUCATIVAS, CALENDARIO ESCOLAR Y SUGERENCIAS PARA EL
INICIO DEL AÑO ESCOLAR DE 1990~1991
(SECRETARIA DE ESTADO DE EDUCACION, BELLAS ARTES Y CULTOS)
9. HACIA UNA ACCION INTENSIVA DE ALFABETIZACION EN 1990~1994
(SECRETARIA DE ESTADO DE EDUCACION, BELLAS ARTES Y CULTOS)
10. PLAN DECENAL DE EDUCACION ¿PARA QUIEN Y PARA QUE?
(SECRETARIA DE ESTADO DE EDUCACION, BELLAS ARTES Y CULTOS)

11. EDUCACION : LA BASE DEL DESARROLLO
(ACCION PARA LA EDUCACION BASICA (EDUCA))
12. PROCEDEMIENTO CONTINUO DE MEDICION DE MEDIOS
(MARKET - PROBE S.A.)
13. INFORME OMSA PRENSA - RADIO TELEVISION NO. 2 FEBRERO 1991
(ORIENTACION MERCADOLOGICA S.A. OMSA)

JICA